

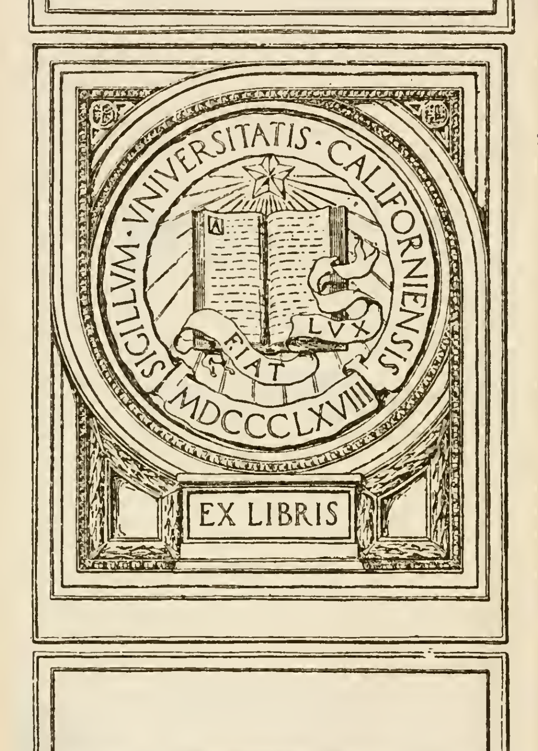
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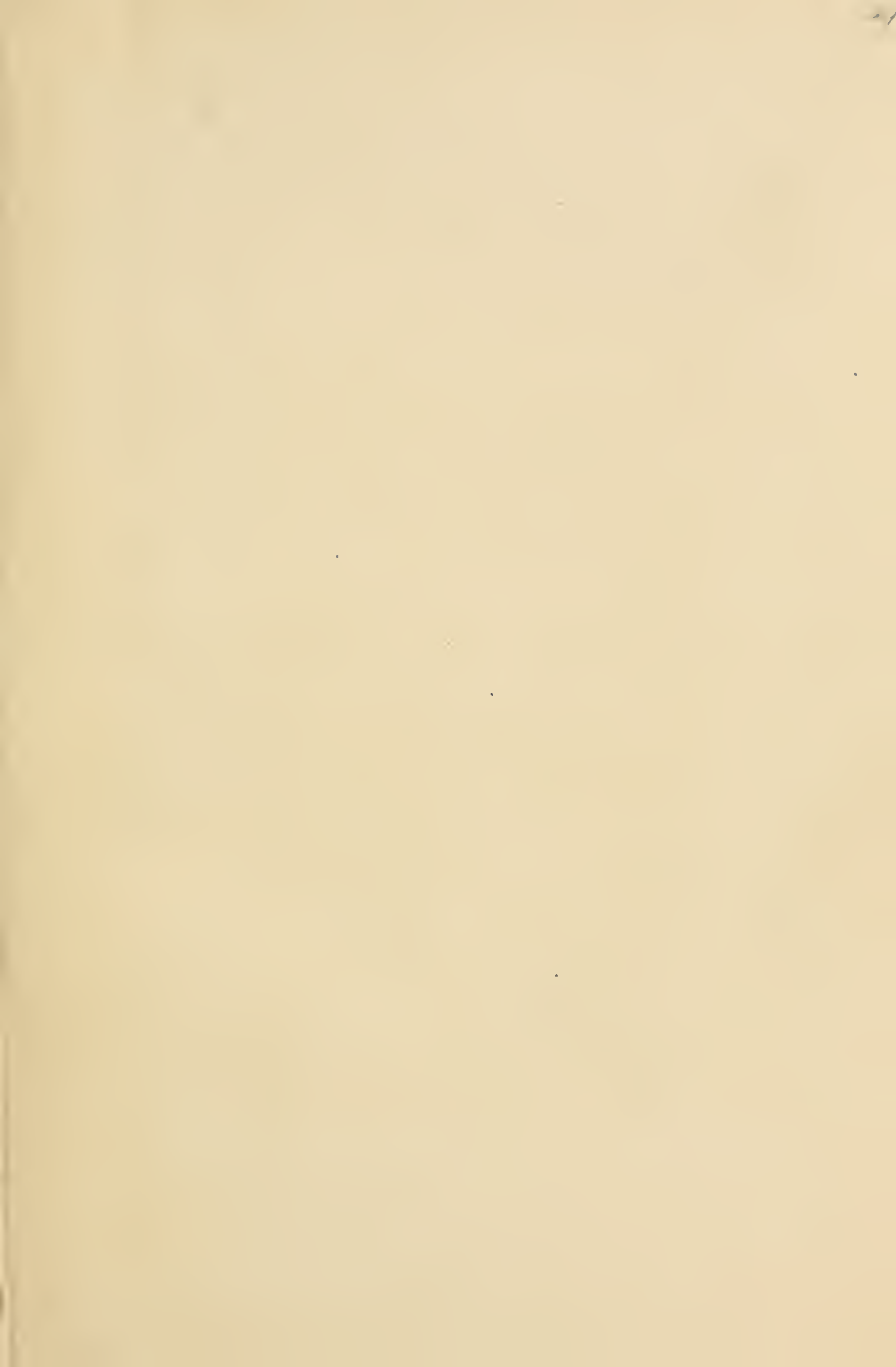
HISTORICAL GRAMMAR

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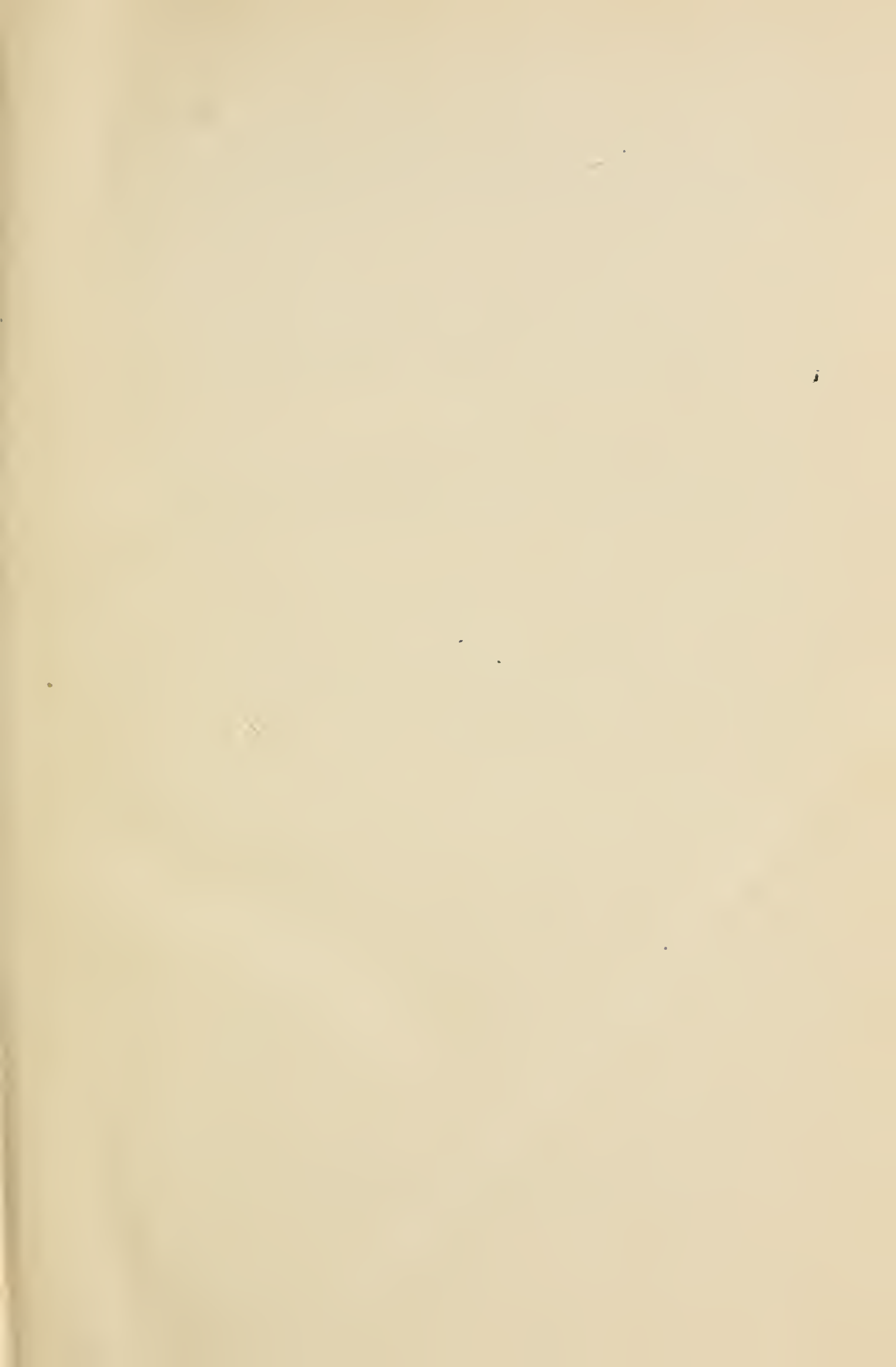
ANCIENT PERSIAN LANGUAGE

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THE VANDERBILT ORIENTAL SERIES

EDITED BY

HERBERT CUSHING TOLMAN AND JAMES HENRY STEVENSON

HISTORICAL GRAMMAR

OF THE

ANCIENT PERSIAN LANGUAGE

BY

EDWIN LEE JOHNSON, Ph.D.

AUTHOR OF INDEX VERBORUM TO THE
OLD PERSIAN INSCRIPTIONS

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PREFACE.

THE work done in Ancient Persian during the past twenty years by such scholars as King and Thompson, Bartholomae, Weissbach, Jackson, and Tolman has rendered the earlier grammars of the language of little value for present day study. To a careful reëxamination of the inscriptions, with a consequent revision of readings, there has been added a determination of forms and of interpretation through comparative study of the languages of the Iranian group. This volume is accordingly designed to serve a twofold purpose: to present in systematic arrangement the results of the most recent as well as the earlier investigation in this field, and to show by comparative examples the development of the Ancient Persian from the parent speech and its relation to the other languages of the family, particularly the Sanskrit and the Avestan.

While this work was in preparation Prof. A. Meillet published his *Grammaire du Vieux Perse,* an excellent presentation of both the inflectional forms and the syntax of the language. But I believe there may still be a place for a grammar the distinctive feature of which is the historical treatment of the subject.

Chapter II. serves in a measure as a bibliography. In addition to the books mentioned there, I must acknowledge my indebtedness to Thumb's *Handbuch des Sanskrit,* Reichelt's *Awestisches Elementarbuch,*

Wright's *Comparative Grammar of the Greek Language,* and most of all to the work of Brugmann.

In the chapters on syntax where examples have been quoted the text of Professor Tolman, in his *Ancient Persian Lexicon and Texts,* has generally been followed.

I am under obligations also to other publications of Professor Tolman. But, far more than this, I must express to him personally my deepest gratitude, since I feel that without his careful supervision this work would have been impossible.

EDWIN LEE JOHNSON.

VANDERBILT UNIVERSITY, February 20, 1917.

CONTENTS.



ABBREVIATIONS.

Aeol., Aeolic.
Afγ., Afγān, Afghan.
AJP, American Journal of Philology.
Anc. Pers., Ancient Persian.
Ar., Aryan.
Arm., Armenian.
Art., Artaxerxes (Inscription).
A. S., Anglo-Saxon.
Att., Attic.
Av., Avesta.
Aw. Elem., Awestisches Elementarbuch (Reichelt).
Bab., Babylonian.
Balt., Baltic.
Balto-Slav., Balto-Slavonic.
Bh., Behistan (Inscription).
Boeot., Boeotian.
Bthl., Bartholomae.
Bulg., Bulgarian.
Class., Classical.
Cun. Sup., Cuneiform Supplement (Tolman).
Cypr., Cyprian.
Dar., Darius (Inscription).
Dor., Doric.
Elam., Elamite.
Elv., Elvend (Inscription).
Eng., English.
Epir., Epirote.
GAv., Gāthā-Avesta.
Germ., German.
Goth., Gothic.
Grk., Greek.
Hom., Homeric.
I. E., Indo-European.
Ind. Verb., Index Verborum (Johnson).

Ir., Irish.
Iran., Iranian.
JA, Journal Asiatique.
JAOS, Journal of the American Oriental Society.
JRAS, Journal of the Royal Asiatic Society.
Kelt., Keltic.
Ker., Kerman (Inscription).
Kurd., Kurdish.
KVG, Kurze Vergleichende Grammatik der indogermanischen Sprachen (Brugmann).
KZ, Zeitschrift für vergleichende Sprachforschung.
Lat., Latin.
Lesb., Lesbian.
Lex., Ancient Persian Lexicon and Texts (Tolman).
Lith., Lithuanian.
Mid., Middle.
NR., Nak̦š-i-Rustam (Inscription).
O., Old.
O. H. G., Old High German.
Osc., Oscan.
Oss., Ossetish.
PAPA, Proceedings of the American Philological Association.
Prim., Primitive.
PSBA, Proceedings of the Society of Biblical Archaeology.
Pers., Persian, Persepolis (Inscription).
Phl., Pahlavī.
Prākt., Prākrit.
RA, Revue Asiatique.
Skt., Sanskrit.
Slav., Slavonic.
Sus., Susa (Inscription).
Ved., Veda, Vedic.
Xerx., Xerxes (Inscription).
YAv., Younger Avesta.
ZA, Zeitschrift für Assyriologie.
ZDMG, Zeitschrift der Deutschen Morgenländischen Gesellschaft.
ZKM, Zeitschrift für die Kunde des Morgenlandes.

CHAPTER I.

THE DECIPHERMENT OF THE INSCRIPTIONS.

1. FORTY miles northeast of Shiraz, in South Central Persia, is a range of limestone hills before which in a semicircular hollow, and yet above the plain, is a level area extending fifteen hundred feet in one direction and eight hundred in another. This terrace, leveled off and held in front by a retaining wall, forms a part of the ancient city of Persepolis, and here the Achæmenidan kings built their royal structures. The passing centuries have left extensive ruins of these great buildings, and columns and doorposts, portions of walls and staircases, with sculptured figures and bas-reliefs, still suggest to the traveler something of the magnificence of the Palace of Darius or the Palace and the Column Hall of Xerxes.

2. In 1320 a Franciscan friar named **Odoric** passed through Persia on a journey to Cathay, and his brief reference to what he believed had been "an huge and mightie city in olde time" (*antiquitatis civitas magna fuit*), was the first intimation Europe had of the existence of such ruins. A hundred and fifty years elapsed before another message came, this time from **Josophat Barbaro,** envoy from Venice to the court of Uzun Cassan—a message that added but little to that of Odoric and in its turn was forgotten for a hundred years or more.

3. When in 1586 Shah Abbas had begun to receive European ambassadors, Philip III. of Spain and Portugal sent to him **Antonio de Gouvea,** who wrote a

most interesting account of his visit to Persepolis. With his comments on the arrangement of doorways, pavements, stairs, and columns, he says: "The inscriptions—which relate to the foundation of the edifice and no doubt also declare the author of it—although they remain in many parts very distinct, yet there is none that can read them, for they are not in Persian nor Arabic nor Armenian nor Hebrew, which are the languages current in those parts; and thus all helps to blot out the memory of that which the ambitious king hoped to make eternal."

4. De Gouvea was followed by **Don Garcia de Sylva y Figueroa**, who also visited the ruins and from whose letter to the Marquess de Bedmar in 1619 we read as to the inscriptions (according to an English translation of 1625): "The Letters themselves are neither Chaldean, nor Hebrew, nor Greeke, nor Arabike, nor of any other nation which was ever found of old, or at this day to be extant. They are all three-cornered, but somewhat long, or such a little Obeliske as I have set in the margin (Δ); so that in nothing do they differ from one another but in their placing and situation, yet so conformed that they are wondrous plaine, distinct, and perspicuous."

5. About the same time **Pietro della Valle** was traveling in Persia, and in a letter to a friend at Naples he not only described the Persepolis inscriptions, but—what none before him had done—copied a few of the characters as a specimen and reasoned from the direction of the stroke of the wedges that the language must have been read from left to right.

6. Between 1630 and 1680 **Thomas Herbert**, an English traveler, published several editions of an account

of his travels and described the inscriptions much as others had done, commenting on their unlikeness to any known language and expressing his belief that they were to be read from left to right. With this account he furnished a copy of three lines of cuneiform characters, two lines from one inscription and one from another.

7. Another Englishman, **S. Flower**, Persian agent of the East India Company, had made copies of characters found at Persepolis and at Naḳš-i-Rustam (43) near Persepolis. These again, unfortunately, did not form a complete inscription, but were taken at random from three languages, the Persian, the Elamite, and the Babylonian. This account, published after Flower's death, was criticized by **Thomas Hyde**, professor of Hebrew at Oxford, in his *Historia Religionis veterum Persarum, eorumque Magorum*, published in 1700. He expressed his regret that so much attention had been given to signs which were no language at all; in his own words, "*Me autem judice non sunt Literae nec pro Literis intendebantur; sed fuerunt solius Ornatus causa.*"

8. So the discussion had gone on from time to time with no real progress in the study of the strange writing. Such study may be said to have begun with the publication of a work at Amsterdam in 1711, *Voyages de Monsieur le Chevalier* **Chardin**, *en Perse et autres lieux de l'Orient*, in which the author gave the first copy of a complete inscription, one from the window cornice of the Palace of Darius, now known as Dar. Pers. c (40).

9. **Engelrecht Kaempfer**, a German physician and oriental traveler, followed with a copy of the same

short inscription which Chardin had copied and added a longer one entire, but this in Elamite-Babylonian, not in Persian, and, raising the question as to whether the signs were alphabetic, syllabic, or ideographic, he concluded that they were ideographic.

10. A Dutch traveler, **Cornelis de Bruin**, published in 1714 two complete inscriptions (Xerx. Pers. c and Dar. Pers. a) in three languages, believing them to be six inscriptions; also two others (Dar. Pers. b and Xerx. Pers. b) in Ancient Persian only. The translation of his work from Dutch to French (*Voyages de Corneille le Brun par la Muscovie en Perse et aux Indes Orientales*) four years later gave it wide circulation. Still years passed, and practically nothing was accomplished toward decipherment. Even the discovery in 1762 of a vase (56) with certain cuneiform characters alongside hieroglyphics counted for nothing, since the Rosetta stone had not yet revealed the Egyptian writing to the world.

11. A forward step was taken with the publication at Copenhagen of **Carsten Niebuhr's** *Reisebeschreibung nach Arabien und andern umliegenden Ländern* (1774–1837, 3 vols.), for it was Niebuhr who discovered that there were three systems of writing, though he did not recognize in them three distinct languages. He accordingly divided the characters into the three classes and expressed his belief that they were alphabetic signs, there being forty-two in the first and simplest class.

12. It remained for **Olav Gerhard Tychsen**, professor of Oriental Languages in the University of Rostock, Germany, to discover that the inscriptions copied by Niebuhr were really trilingual and to observe that

the oblique wedge occurring at intervals was a word-divider. He assigned the inscriptions to the period of the Parthian dynasty (B.C. 246-A.D. 227), a mistake corrected by **Friedrich Münter**, of Copenhagen, who also had independently recognized the word-divider and had observed a frequently recurring combination of characters which he thought must be the word for *king*.

13. In 1762 **Anquetil-Duperron**, of Paris, returned from a seven-year sojourn in India, where he had made a thorough study of Modern Persian and of Sanskrit and Avestan. He brought with him numerous oriental manuscripts and in 1771 published, for the first time in Europe, the Avesta. In this, there was every reason to believe, would be found a vocabulary and a grammar that would throw much light on the decipherment of Ancient Persian. Much of the value of the linguistic material gathered by Anquetil-Duperron was due to the arrangement and presentation of it by Eugène Burnouf (20).

14. Furthermore, the great Arabic scholar **Silvestre de Sacy** some years later succeeded in translating certain inscriptions in Pahlavī writing belonging to the Sassanian period (227-641 A.D.). Their regular formula, "——, the great king, the king of kings, the king of Iran and Aniran, son of ——, the great king," etc., was at least suggestive of what one might expect to find in the older inscriptions.

15. Such was the progress made in the study of the cuneiform writing when in 1802 this work attracted the attention and enlisted the service of **Georg Friedrich Grotefend**, of the Frankfort Gymnasium. From the material furnished by travelers mentioned above

he chose two inscriptions of what he believed to be Ancient Persian, since he was convinced of the trilingual character of the writing. Of these two—now known as Darius Persepolis a and Xerxes Persepolis ea (= eb)—he had the copies that Niebuhr had made. (These inscriptions are given on the opposite page.) Each of them appeared on door-posts and above the sculptured figure of a king, and Grotefend believed, as had Tychsen and Münter, that here should be found titles or names of Achæmenidan rulers. In the two inscriptions he found this frequently recurring combination of signs 𐎧𐏁𐎠𐎹𐎰𐎡𐎹 sometimes repeated with several additional signs, thus: 𐎧𐏁𐎠𐎹𐎰𐎡𐎹𐎠𐎴𐎠𐎶. The most natural meaning for such a word was *king*, and for the combination of shorter and longer form *king of kings.* This word, moreover, was followed by another group of characters, 𐎺𐏀𐎼𐎣, the same in both inscriptions; and from De Sacy's translation of the Sassanian inscriptions it was easily inferred that this meant *great.* And from this same comparison Grotefend decided that the group of signs before the word for *king* must be the king's name. This name, if it should be such, occurred again in the second inscription in a longer form, which might be a genitive, and followed by a word 𐎱𐎢𐏂 which, in that event, ought to mean *son.* This word occurred again in the fifth line of the first inscription following what might be a name, but without the word taken to mean *king.* The problem then was to select three different names of rulers, the grandfather not having the title of "king" which was borne by the son and the grand-

Dar. Pers. a.

On the door-posts of the palace of Darius above the sculptured figure of the king.

Xerx. Pers. e.

Repeated on the north and east door-posts of the palace of Xerxes above the sculptured figure of the king.

son. Grotefend suspected that the names were Hystaspes, Darius, and Xerxes. Partly from the Hebrew pronunciation of the name of Darius as Daryavesh, he concluded that the seven signs of the first name in the first of the two inscriptions might be D-A-R-H-E-U-SH. Relying again on the Hebrew and also on the Avestan and observing the signs common to the two names, he read the name at the beginning of the second inscription as CH-SH-H-A-R-SH-A. Similarly, with some help from the Avestan, he read the third name as G-O-SH-T-A-S-P. And thus he offered the partial translation:

Darius, the mighty king, king of kings, . . .
son of Hystaspes. . . .

Xerxes, the mighty king, king of kings, . . .
son of Darius the king. . . .

16. Other scholars were still going on with their work. In 1812 **J. P. Morier** gave some account of the inscriptions in his *Journey through Persia* and was the first to publish the Murghab Inscription (52).

17. A valuable work was published in 1822 by **Sir Robert Ker Porter** entitled *Travels in Georgia, Persia, Ancient Babylonia, &c., &c.* In his account of the sculptures on the Behistan rock, described below (39), he ventured the unique suggestion that here was a representation of the conquest of Israel by Shalmaneser, king of Assyria and the Medes, the ten figures before the king being leaders of the ten tribes, the one with the high cap a Levite, and the inscription on the garment of the third standing figure representing the phylacteries of the Jews. "What these signs may mean," he says, "we have no means

of explaining till the diligent researches of the learned may be able to decipher the arrow-headed character."

18. **Champollion** was now engaged in deciphering the Egyptian hieroglyphics, and when he and the **Abbé Saint-Martin,** who had carefully examined Grotefend's work, had studied together the writing on the vase mentioned above (10), their transliteration of the name of Xerxes as CH-SH-A-R-SH-A, with the same name occurring in the Egyptian, clearly indicated that Grotefend's work was not far from correct. Saint-Martin later (1839) published in the *Mémoires de l'Institut Royal de France* his *Nouvelles Observations sur les Inscriptions de Persepolis.*

19. Here too is to be mentioned the work of the Norwegian scholar, **R. Rask,** who was able to separate the genitive plural ending of the word meaning *of kings*, by comparison with another word which, according to the Sassanian phrase, should be *of lands.* He had also determined correctly the characters **m** and **n** (*i. e.*, m^a and n^a as they were later shown to be).

20. **Eugène Burnouf,** the Avestan grammarian, found in one of Niebuhr's Naḳš-i-Rustam inscriptions what seemed to be a list of countries, and from a study of this he made out almost a complete Ancient Persian alphabet. In 1836 he published in the *Mémoire sur deux Inscriptions cuneiformes trouvées pres d'Hamadan* the Elvend Inscription of Darius (49), after a copy made by Fr. E. Schultz.

21. **Christian Lassen** published at about the same time the list of geographical names from the Naḳš-i-Rustam inscription, and they proved to be almost identical with Burnouf's list, insomuch that his independence has been questioned. Of greater importance was

Lassen's conclusion as to the value of the Ancient Persian characters. From finding what seemed impossible combinations of consonants he reasoned that this language must be, in part at least, syllabic; that the sound of a, *e. g.*, inhered in the consonant sign and was written only when initial or when otherwise separate from a consonant sound. His work was supplemented by that of **Jacquet**, of Paris, who determined the characters **c**^{a} and θ^a. Both Jacquet and **Beer** reached the conclusion that **ī** was not distinguished from **i**, nor **ū** from **u**, by separate signs.

22. **Claudius James Rich**, an Englishman who had long lived in Bagdad, had copied in 1811 the texts at Persepolis, including those which Niebuhr and others had failed to furnish or had given incomplete. These were found among Rich's papers after his death and were published in 1839 in the *Narrative of a Journey to the Site of Babylon in 1811*, and much new material was thus placed in the hands of Lassen.

23. Then followed the Danish traveler, **N. L. Westergaard**, who visited the tombs of the Persian kings at Naḳš-i-Rustam (43) and brought back copies of the great upper inscriptions of the tomb of Darius and some of the lower—a number of inscriptions not heretofore published. He not only furnished the results of his investigation to Lassen, but this work called forth other treatises, among them that of **Holtzmann**, who correctly determined the sign for **j**^{a} and saw that **iy** and **uv** were not always to be read **iya** and **uva**.

24. Between 1842 and 1852 **Charles Texier** published several of the inscriptions already known (as Dar. Pers. e, Xerx. Pers. b, Xerx. Elv., Murghab) in his

work entitled *Description de l'Armenie, la Perse, et la Mesopotamie.*

25. But the work of decipherers was not yet received with the utmost faith. There was needed, further, such work as was now being done by Major (afterward, Sir) Henry C. Rawlinson, of Oxford, England, who as a boy had gone to India in the service of the East India Company and there had learned Modern Persian along with several dialects of India. In 1833 he went to Persia to assist in the reorganization of the Persian army, and there his attention was attracted by the cuneiform inscriptions on the mountain of Elvend (49), near Hamadan (the ancient Ecbatana). He set to work on these independently (Schultz had made copies of them, and Burnouf had published one, 49), although his method was much the same as that of Grotefend. He recognized at once the trilingual writing, copied the two inscriptions, found the characters much the same in both, except in certain groups which he inferred must be proper names. He observed but three of these distinct groups, and their position suggested that they might be names of a genealogical succession. He tried the names Hystaspes, Darius, Xerxes, and found them satisfactory.

26. In 1835 Rawlinson was sent to Kermanshah, and on the way passed the Behistan mountain, sixty-five miles west of Hamadan. This was the beginning of his study of the great inscription of Darius high on the perpendicular face of the rock (39). At the risk of his life he began to copy this longest of the inscriptions, and two years later he had made copies of about half the columns of the Persian text. He then

sent to the Royal Asiatic Society of London his translation of the first two paragraphs. It was in 1836, at Teheran, that he first became acquainted with the results of the work of Grotefend and Saint-Martin and found that he had gone even farther than they in the determination of the alphabet. In 1838 he obtained Burnouf's work on Avestan and the material which Niebuhr and Le Brun had brought from Persepolis. Settling in Bagdad, he began his study of Sanskrit, and just as he was about to publish the results of his Persian research he was transferred to Afghanistan, and not till 1846 was the publication made. By this time he had obtained Westergaard's new copies of inscriptions at Persepolis and had himself made another examination of those at Behistan. Of the latter he was able to give a nearly complete translation in his account which appeared in the Journal of the Royal Asiatic Society.

27. In the Dublin University Magazine of January, 1847, was an anonymous article with the title, *Some Passages of the Life of King Darius.* The author ventured some criticisms of Rawlinson's readings and translations and displayed a most remarkable acquaintance with the subject of the cuneiform writing. The unknown writer proved to be the **Rev. Edward Hincks,** of Killyleagh, Ireland, and he had done much independent work on the translation of the Persepolitan inscriptions.

28. In the same year **Theodor Benfey** published at Leipzig *Die persischen Keilinschriften mit Uebersetzung und Glossar*, giving a transliteration of the Behistan inscription and comments along with his translation. Furthermore, of the other inscriptions

previously published he gave both his own translation and that of Lassen.

29. In 1851–52 **Eugène Flandin** and **Pascal Coste** did valuable work in the publication of the inscriptions—some for the first time, as Xerx. Pers. db, Art. Pers. b—in their *Voyage en Perse.*

A few years later **William Kennet Loftus,** the first to give the text of Art. Sus. a and b, published his *Travels and Researches in Chaldæa and Susiana.*

30. By this time the work of decipherment was practically complete; with the reading of the rare **l**^{a} by **F. Oppert** in 1851, the entire syllabary had been determined. The following summary will show the length of time over which the work extended and the number of scholars who contributed to its success:

Character	Determined by	Date	
a	Grotefend	1802	
i	Saint-Martin	1832	
u	Grotefend	1802	
k^{a}	Lassen	1836	
k^{u}	Hincks, Rawlinson	1846	
x^{a}	Lassen	1836	(**kh** Grotefend, 1802; **k** Burnouf)
g^{a}	Lassen	1836	
g^{u}	Hincks, Rawlinson	1846	
c^{a}	Jacquet	1837–8	
j^{a}	Holtzmann	1845	
j^{i}	Rawlinson	1846	
t^{a}	Lassen	1836	(**t** Grotefend, 1802)
t^{u}	Windischmann	1845	
θ^{a}	Jacquet	1837–8	
θ^{ra}	Lassen	1844	(**thr**^{a})

Character	Determined by	Date	
d^a	Lassen	1836	
d^i	Hincks, Rawlinson	1846	
d^u	Hincks, Rawlinson	1846	
p^a	Lassen	1836	(p Grotefend, 1802)
f^a	Lassen	1836	(f Grotefend, 1802)
b^a	Lassen	1836	(b Burnouf)
n^a	Lassen	1836	(n Rask, 1821)
n^u	Rawlinson	1846	
m^a	Hincks, Rawlinson	1846	(m Rask, 1821)
m^i	Hincks, Rawlinson	1846	
m^u	Rawlinson	1846	
y^a	Beer	1837	(Jacquet 1837–8)
r^a	Lassen	1836	(r Grotefend, 1802)
r^u	Jacquet	1837–8	
l^a	Oppert	1851	
v^a	Hincks, Rawlinson	1846	(w Lassen, 1836)
v^i	Hincks, Rawlinson	1846	
s^a	Lassen	1836	(s Grotefend, 1802)
$š^a$	Lassen	1836	(sch Grotefend, 1802)
z^a	Lassen	1836	(z Burnouf)
h^a	Beer, Jacquet	1837–8	

Of the ideograms, **XŠ** for **xšāyaθiya** belongs to Grotefend, 1802, **DAH** (1 and 2) and **BUMI** to Lassen, 1844; while the one remaining, **AURAMAZDA**, was determined in 1890 by **B. T. Evetts.**

During the period from 1860 till the present time the critical study of the text of the inscriptions has gone on, with reëxamination of the writing through the help of photography, with consequent modifications of translation, with the compilation of glossaries and indexes and the preparation of grammars.

A number of the works that have been published during this time are given in the following paragraphs.

31. In 1862 was published the first edition of **Fr. Spiegel's** *Die Altpersischen Keilinschriften, im Grundtexte, mit Uebersetzung, Grammatik, und Glossar*. The second edition appeared in 1881. During this interval **Oppert** had furnished (1869) the text of the Suez inscriptions published in the *Academy of Inscriptions* and **C. Kossowicz** had published (1872) a sumptuous edition of the *Inscriptiones Palaeo-Persicae*, with printed cuneiform text, transliteration, translation, and glossary, based largely on Spiegel's edition.

32. With the text a transliteration and translation and a brief grammar were included in a *Guide to the Old Persian Inscriptions*, published by **H. C. Tolman** in 1893. In the same year **Weissbach** and **Bang** published their *Die Altpersischen Keilinschriften.*

In 1894 appeared **Bartholomae's** *Awestasprache und Altpersische* in *Grundriss der Iranischen Philologie*, in 1904 his *Altiranisches Wörterbuch*, followed in 1906 by *Zum Altiranischen Wörterbuch.*

33. In 1903 **Professor A. V. Williams Jackson**, of Columbia University, made a reëxamination of the Persian text at Behistan, and a summary of his collations of doubtful passages in the lower portions of the first four columns is given in JAOS, Vol. xxiv., pp. 77ff, and in his *Persia, Past and Present*, pp. 186ff. (New York, 1906.)

34. In 1904 **Mr. L. W. King** was conducting excavations at Kuyunjik for the trustees of the British Museum. He was instructed by the trustees to make, with the help of **Mr. R. C. Thompson**, a complete

collation of the Behistan inscriptions. They were able, by climbing up a ravine around the end of the mountain, to reach a ledge two hundred feet above the inscriptions; from this they suspended ropes to the lower ledge, and, climbing then from the base of the mountain to the lower ledge, they attached cradles which could be drawn up along the face of the rock. They thus made accurate measurements and succeeded in clearing up many doubtful readings, filling several lacunæ, and also found that certain signs that were plain in Rawlinson's time had since disappeared. Their work was done for the Elamite and Babylonian texts, as well as for the Persian, and the results of it were published in 1907 in *The Sculptures and Inscriptions of Darius the Great on the Rock of Behistan in Persia.*

These readings were discussed the following year by **Professor Tolman** in a work entitled *The Behistan Inscription of King Darius* and by **Arthur Hoffmann-Kutschke** in two monographs, *Die Altpersischen Keilinschriften des Grosskönigs Dārajawausch des Ersten am Berge Bagistān* and *Die Altpersischen Keilinschriften des Grosskönigs Dārajawausch des Ersten bei Behistun.*

35. In 1908 **Professor Tolman** published an *Ancient Persian Lexicon and Texts*, giving, with the transliterated text, a translation and a complete glossary, making use of the later readings as furnished by Jackson, by King and Thompson, and by Stolze's photographs of the Persepolitan inscriptions, and other recent studies. This work was followed in 1910 by the *Cuneiform Supplement* by the same author, in which he gave a new autograph copy of the cunei-

form texts in accordance with the later material mentioned above. With the *Cuneiform Supplement* is included a *Brief Historical Synopsis* of the Ancient Persian language. To this work also is appended an *Index Verborum of the Old Persian Inscriptions* by the author of the present work. The Index gives also the newer readings and the proposed emendations of various scholars.

36. The Aramaic Papyrus Fragment containing portions of the Behistan inscription, was published by Sachau in 1911 (*Aramaische Papyrus und Ostraka*) and was discussed by **Tolman** with reference to the cruces of the inscriptions in PAPA xlii. 50ff.

37. It was during the same year that **Weissbach** published his *Die Keilinschriften der Achämeniden*, which furnishes a collation of the Old Persian, Elamite, and Babylonian texts, arranged synoptically, with introduction and critical notes. From photographs and copies Weissbach has corrected certain readings in Dar. NRa (see 43) and has furnished numerous lines in NRb and several inscriptions above the national types supporting the throne of Darius on his grave relief. This later material was published by him in *Abhandlungen der Königlichen Sächsichen Gesellschaft der Wissenschaften*, Vol. xxix.

38. In 1915 **Professor A. Meillet**, of the Collège de France, published in Paris his *Grammaire du Vieux Perse*, giving in full the inflectional forms of the language and a discussion of their uses.

CHAPTER II.

The Location and Publication of the Inscriptions.

In the following notes on the location and publication of the various inscriptions reference to the works mentioned in the preceding paragraphs is made, for the most part, by the name of the author only, as: Le Brun (de Bruin) (10), Burnouf (21), Flandin and Coste (29), Jackson (33), King and Thompson (34), Kossowicz (31), Lassen (21), Loftus (29), Morier (16), Niebuhr (11), Porter (17), Rawlinson (26), Rich (22), Saint-Martin (18), Spiegel (31), Texier (24).

39. **The Behistan Inscription.** On the main caravan route between Bagdad and Teheran, the last peak of the mountain range bounding the plain of Kermanshah, is the Behistan Mount. Its earliest known name is that given by Diodorus Siculus, *τὸ βαγίστανον ὄρος*; it is now called Bisitûn. The great rock rises more than fifteen hundred feet from the plain below, the lower part presenting a vertical surface on which, at a height of about three hundred feet, is a sculptured panel. A relief on this shows the figure of the king going forth, attended by his bowman and his lance carrier, his right hand raised to his god Ahura Mazda, his left resting his bow upon an enemy who lies before him, lifting his hands as a suppliant. Standing in a line, and all bound, are nine captives, leaders of rebellions against the king. The figure of Ahura Mazda above holds a wreath in the left hand and beckons to the king with the right. Below these fig-

ures are five columns of cuneiform writing in the Ancient Persian, giving a record of the suppression of the revolts. On the left of the Persian are three columns of the Elamite text, a translation of the first four Persian columns, as is also the single column in Babylonian above the Elamite. Four other columns of cuneiform characters at the right of the sculptured panel are now so weathered as to be for the most part illegible, only a few Elamite words appearing.

The Persian of the minor Behistan inscriptions (a–k) appears above the carved figures, except b, which is under the figure of the fallen rebel, and e, which is on the lower part of the dress of the third standing captive. These inscriptions are also trilingual, with the exception of a and k where the Babylonian is wanting.

The Behistan inscriptions were first published by Rawlinson JRAS, Vols. ix., xi. Copies will be found also in Kossowicz 11–48, Spiegel 2–46, King and Thompson 1–91, Tolman *Lex.* 2–35, Tolman *Cun. Sup.* 1–47, Weissbach 8–79, Hoffmann-Kutschke 8–39.

40. **Darius Persepolis a** consists of six lines over the figure of the king and his attendants, on the doorposts of an inner room of the tacara at Persepolis. These lines were first published by Le Brun cxxxii. They are found also in Niebuhr, pl. 24 B, Saint-Martin JA, Vol. ii., pl. 2, and *Mémoires de l'Académie des Inscriptions* 12, 2, 137, Kossowicz 64, 65, Spiegel 50 (B), Tolman *Lex.* 36, Tolman *Cun. Sup.* 47, Weissbach 80.

Darius Persepolis b, consisting of one line in Ancient Persian only, carved on the dress of the king

in the relief just mentioned, is now in the Cabinet des Medailles of the Bibliothéque Nationale at Paris. It was first published by Le Brun cxxxiii. It is found in Tolman *Lex.* 36, Tolman *Cun. Sup.* 47, Weissbach 80.

Darius Persepolis c consists of one long line occurring eighteen times on the window cornices of the same room. It was first published by Chardin, later by Kæmpfer, Le Brun, Ouseléy, Lassen, and Flandin and Coste. Copies are given in Kossowicz 119, Spiegel 50 (L), Tolman *Lex.* 36, Tolman *Cun. Sup.* 47, Weissbach 80.

Darius Persepolis d. Of this there are twenty-four lines in Ancient Persian only on the south wall of the platform. The corresponding Elamite and Babylonian are not translations of the Persian. It was first published by Niebuhr, later by Porter, Texier, Flandin and Coste, and in Stolze's Photographs. It occurs in Kossowicz 62, 63, Spiegel 46–48 (H), Tolman *Lex.* 36–38, Tolman *Cun. Sup.* 47–49, Weissbach 80–82.

Darius Persepolis e, to the right of Dar. Pers. d, was also first published by Niebuhr, then by Porter, Texier, Flandin and Coste, and in Stolze's Photographs. It is given in Kossowicz 63, 64, Spiegel 48–50 (I), Tolman *Lex.* 38, Tolman *Cun. Sup.* 49, 50, Weissbach 82.

41. Xerxes Persepolis a. The twenty lines of this inscription, four times repeated, appear over the winged bulls at the doorway of the palace of Xerxes at Persepolis and were first published by Rich. Later they were published by Lassen, after Westergaard's copy, Rawlinson, Flandin and Coste, and in

Stolze's Photographs. Copies are given in Kossowicz 93–96, Spiegel 58 (D), Tolman *Lex.* 38–40, Tolman *Cun. Sup.* 50–51, Weissbach 106–108.

Xerxes Persepolis b. These thirty lines in Ancient Persian only are on the walls of the staircase at the north side of the Column Hall. They were published first by Le Brun cxxvi., then by Niebuhr, Porter, Lassen, Grotefend, Texier, Flandin and Coste, and in Stolze's Photographs. Copies will be found in Kossowicz 101–103, Spiegel 62 (A), Tolman *Lex.* 40, Tolman *Cun. Sup.* 51–52, Weissbach 108–110.

Xerxes Persepolis ca was also first published by Le Brun cxxxi., later by Lassen, Rich, Flandin and Coste, and in Stolze's Photographs. It consists of fifteen lines on the door-posts at the southwest corner of the palace of Darius. In the form **cb** it consists of twenty-five lines on the south wall of the terrace and was first published by Rich, later by Flandin and Coste, and in Stolze's Photographs. The inscription may be found in Kossowicz 99–100, Spiegel 62–64 (Ca and Cb), Tolman *Lex.* 40–42, Tolman *Cun. Sup.* 52-53, Weissbach 110–112.

Xerxes Persepolis da, first published by Rich (then by Flandin and Coste and in Stolze's Photographs) consists of nineteen lines on pillars on the north side of the palace of Xerxes. In the form **db** it appears in twenty-eight lines on the outer side of the stairway at the north of the palace and was first published by Flandin and Coste, also in Stolze's Photographs. Copies are given in Kossowicz 97–98, Spiegel 60–62 (Ea and Eb), Tolman *Lex.* 42, Tolman *Cun. Sup.* 53-54, Weissbach 112–114.

Xerxes Persepolis ea and **eb.** These four lines, first

published by Niebuhr, are found over the carved figure of the king, with his attendants holding the sunshade and the flyflap, on the door-posts of the palace of Xerxes, **ea** on the north side, **eb** on the east side of the palace. They were published also by Saint-Martin and Rich. They are given in Kossowicz 96, Spiegel 60 (G), Tolman *Lex.* 42, Tolman *Cun. Sup.* 54–55, Weissbach 114.

42. **Artaxerxes Persepolis a**, three times repeated (**aa, ac, ad**), appears on the north terrace wall of the palace of Artaxerxes III. It consists of twenty-six lines and was first published by Rich, pl. xxiii. In the form of **Art. Pers. b**, in thirty-five lines, it is found beside the steps on the west side of the palace of Darius and was first published by Flandin and Coste, Vol. iii., pl. cxxv. Copies are given in Kossowicz 132–133, Spiegel 68–70 (P), Tolman *Lex.* 42–44, Tolman *Cun. Sup.* 55–56, Weissbach 128.

43. Nine or ten miles northwest of Persepolis, at Nakš-i-Rustam ("Picture of Rustam," a mythical hero), on the precipitous south side of the mountain, are hewn out the tombs of four Achæmenidan kings. These tombs have the same form, each with four pillars, with the entrance at the middle. Over this are two rows of figures upholding a platform on which the king stands before an altar, and above is the divine symbol. On one of these tombs the following inscriptions are found:

NRa, at the left of the figure of the king, consists of sixty lines and was first published by Lassen, after Westergaard's copy, given also in Stolze's Photographs.

NRb appears underneath the rows of figures be-

tween the pillars at the left of the entrance and consists of sixty lines. The first nine of these were first published by Lassen, after Westergaard's copy; while the first fifteen were published by Rawlinson, also after Westergaard, only in transliteration (later also by Flandin and Coste). Additional readings have been furnished by the work of Weissbach, *Die Keilinschriften am Grabe des Darius.*

NRc, consisting of two lines over the figure of the spear-bearer at the left of the king; **NRd**, of two lines under the figure of the spear-bearer and over that of the bowman; and **NRe**, one line, over one of the figures carrying the throne, were first copied by Tasker and published by Rawlinson.

Over the heads of several other throne-bearers are inscriptions which have more recently been made out from copies by Babin and Houssay and are translated by Weissbach in *Die Keilinschriften am Grabe des Darius*, referred to by him as NR I., II., III., IV., XV., XVI., XVII., XXIX. (=NRe).

Copies of the Nakš-i-Rustam inscriptions are given in Kossowicz 76–80, Spiegel 52–58, Tolman *Lex.* 44–48, Tolman *Cun. Sup.* 56–61, Weissbach 86–95, also Weissbach *Die Keilinschriften am Grabe des Darius* 1–53, with plates.

44. The Persian kings had their winter home at Susa, on the eastern bank of the Choaspes, in the province of Susiana. An area of several square miles is now covered by the ruins of the ancient city. From the excavations carried on here we have several inscriptions.

Darius Susa a and b, the one of five lines, the other of eleven, both mutilated, are on two clay tablets now

in the Louvre. They were first published by Dieulafoy, and copies are given in Tolman *Lex.* 48, Tolman *Cun. Sup.* 61-62, Weissbach 98.

45. **Xerxes Susa**, in two lines of three languages around a column base now in the Louvre, was photographed and published by J. de Morgan, *Délégation en Perse* i. 90. The photograph is copied with transliteration and translation in Tolman *Lex.* 1. The cuneiform copy is given in Tolman *Cun. Sup.* 62.

46. **Artaxerxes Susa a**, of five lines, is on the pedestals of four columns of a hall similar to the Column Hall at Persepolis. The inscription was first published by Loftus, as was also **Art. Sus. b**, one line on a pedestal taken from another part of the ruins and brought to the Louvre by Dieulafoy. **Art. Sus. c**, of seven lines and in Ancient Persian only, is on a stone plate now in the Louvre and was first published by Dieulafoy.

Copies of these inscriptions are given in Kossowicz 126–127 (except Art. Sus. c), Tolman *Lex.* 48–50, Tolman *Cun. Sup.* 62–63, Weissbach 122–124.

47. The **Inscriptions of Suez**, commemorating the completion of the canal from the Nile to the Red Sea, are on a pillar found near Shalûfet-Terrâbeh, in Egypt. On one of the two flat surfaces is a winged disc above, while the figures of two men below hold between them a tablet with an inscription of the single word "Darius" in Ancient Persian only (**Suez a**). **Suez b**, of seven lines, occurs in Persian at the right of the figures mentioned, in Elamite and Babylonian at the left. The whole lower part is occupied by **Suez c**, twelve lines, in Ancient Persian, Elamite, and Babylonian, though the last is now wholly obliterated.

The hieroglyphics on the back side of the pillar are not a translation of the Persian text.

These three inscriptions were first published by Oppert in *L'Académie des Inscriptions*. Copies are found in Kossowicz 52–53, Spiegel 50–52 (**Sz. b** and **Sz. c** designated as SZ a and SZ b, respectively; **Sz. a** wanting), J. Ménant (1887), *Rec. de Travaux* 9, 131, G. Daressy ib. 11, 160ff, Tolman *Lex.* 50–52, Tolman *Cun. Sup.* 64–65, Weissbach 102–104.

48. **Darius Kerman.** On three sides of a quadrangular pyramid of black stone from the shrine of Nimat-ullah at Maghan, a village near the city of Kerman, is found this inscription of nine lines. It was first published by J. A. Gobineau, *Traité de l'Écriture Cuneiforme* i. 323ff. It is also given by Jackson, JAOS 27, 193ff, Tolman *Lex.* 52, Tolman *Cun. Sup.* 65–66, Weissbach 104.

49. South of Hamadan, on the steep side of the mountain of Elvend, are two niches with inscriptions. In the left niche, which is somewhat higher than the other, is the inscription **Darius Elvend,** consisting of twenty lines, published first by Fr. E. Schulz, then by Burnouf, by Flandin and Coste i., pl. 26, Spiegel 46 (O), De Morgan *Mission Scientifique* (2), pl. lviii., Jackson *Persia*, 170ff, Kossowicz 49, Tolman *Lex.* 52, Tolman *Cun. Sup.* 66, Weissbach 100.

In the niche on the right is the inscription **Xerxes Elvend,** of twenty lines, first published by Burnouf after Schulz's copy (*Mémoire sur deux Inscriptions*, pl. 4, and JA 3, 9, pl. vi.), later in Texier 159, Flandin and Coste i., pl. 27, Spiegel 64–66 (F), Kossowicz 105, Tolman *Lex.* 52–53, Tolman *Cun. Sup.* 67, Weissbach 116.

50. **Xerxes Van.** In a rectangular niche sixty feet high, on the perpendicular rock of the citadel of Van, is found this inscription of Xerxes, consisting of twenty-seven lines. It was first published after Schulz's copy in JA iii. 9, pl. 2, and later in Texier 139, Spiegel 66 (K), Kossowicz 109–110, Lehman *Sitzungsberichte d. k. Preuss. Academie d. Wiss.*, (1900), pl. ii., Tolman *Lex.* 54, Tolman *Cun. Sup.* 67–69, Weissbach 116–118.

51. **Artaxerxes Hamadan.** This inscription of seven lines on fragments of two pedestals found in Hamadan and now in the British Museum was first published in 1890 by B. T. Evetts in ZA 5, 413ff. It was described by Pinches (1885) PSBA 7, 132ff, and by Tolman in the *Reëxamination of the Inscription of Artaxerxes II.*, PAPA 36, 32. It may be found in Tolman *Lex.* 54, Tolman *Cun. Sup.* 69, Weissbach 126.

52. **Murghab.** In the ruins of a palace at Murghab, twenty-eight miles northeast of Persepolis, is a monolith on which, above the relief of a winged figure, was formerly an inscription of two lines: "I (am) Cyrus the king, the Achæmenide." It is repeated on three other pillars and was formerly on one high column, from which, however, it has now vanished. Since the name of the father is not given, some doubt has arisen whether it is to be assigned to Cyrus the Elder, son of Cambyses, or Cyrus the Younger, son of Darius Nothus. But the elder Cyrus had hitherto left only Babylonian inscriptions, and it has been thought improbable that he would have adopted a new language for a single two-line inscription. And Darius seems to say (Bh. L) that he was the first to write an inscription in the Aryan language.

This inscription was first published by Morier pl. 29. Later it is given in Ouseley *Travels* 2, pl. 49, Porter 1, pl. 13, Saint-Martin JA 2, Rich pl. 12, Texier 2, pl. 84, Flandin and Coste 4, pl. 199 A–E, Spiegel 2 (M), Dieulafoy *L'Art Antique de la Perse* 1, pls. 13 and 14, Curzon *Persia*, 270ff, Jackson *Persia*, 279ff, Tolman *Lex.* 56, Tolman *Cun. Sup.* 69, Weissbach 126.

53. Darius Seal. On one side of a small cylinder now in the British Museum is this inscription of a single line, which was first published by Grotefend in *Neue Beitr.* 5, Fig. ii. It has been frequently copied and may be found in Kossowicz 57, Spiegel 50 (Na), Tolman *Lex.* 56, Tolman *Cun. Sup.* 70, Weissbach 106.

54. Other Seal Inscriptions are the following:

a. This inscription, now in the British Museum, consists of eight lines, and was first published by Grotefend in 1850, ZKM 7, pl. 5. It is also given by Layard *Discoveries* 2, 607, Spiegel 70 (R), Kossowicz 136, Ménant *Les Achéménides* (1872), King *Handbook of Engraved Gems* 203, pl. v., Tolman *Lex.* 56, Tolman *Cun. Sup.* 70, Weissbach 130.

b. This consists of three mutilated lines on a seal formerly in the possession of A. Raifé in Paris. It was first published by Lenormant in his *Catalogue de la Collection A. Raifé* 69, later by Ménant 153, also Tolman *Lex.* 56, Tolman *Cun. Sup.* 70, Weissbach 130.

c and **d.** These two inscriptions of a single word each were first published by De Gobineau in 1874 in RA (*Nouv. ser.*) 27, 383. They are given in Tolman *Lex.* 56, Tolman *Cun. Sup.* 70, Weissbach 130.

e. This consists of three lines on a seal in the *Musée des Armures*, in Brussels. It was first published by Ménant in *Comptes Rendus de l'Academie des Inscriptions* (1877) 333ff, later by Justi in the *Iranisches Namenbuch* 173. It is copied in Tolman *Lex.* 56, Tolman *Cun. Sup.* 70–71, Weissbach 130.

55. Darius Weight Inscription. These eight lines, on a weight of green basalt now in the British Museum, were first published in 1888 by Budge in PSBA 10, 464. They are given in Tolman *Lex.* 56, Tolman *Cun. Sup.* 71, Weissbach 104.

56. Xerxes Vase Inscriptions. Three of these vases are to be noted, each presenting an inscription of a single line:

a. In four languages on the vase mentioned above (10), now in the Cabinet des Medailles of the Bibliothèque Nationale, in Paris. Saint-Martin was the first to publish this in JA, Vol. ii., pl. 2. It was described by Caylus and published later by Grotefend in the *Neue Beiträge z. erl. persep. Keilinschriften* pl. 2; by Pettigrew, *Archæologia* 31, pl. 6.

b. The same line, though mutilated, on a specimen in the British Museum, was first published by Newton *History of Discoveries* 2, Part 1, p. 91; Part 2, p. 667ff.

c. The same line again is found on a vase now at the University of Pennsylvania, published first by A. T. Clay in the *Museum Journal* 1, 6ff.

This inscription (**a**, **b**, **c**) may be found also in Kossowicz 111, Spiegel 66 (Qa), Tolman *Lex.* 56, Tolman *Cun. Sup.* 71, Weissbach 118.

Fragments of similar vases were found in Susa by Loftus (see 409ff) and by Dieulafoy (*Acropolis de*

Suse, 435). See also De Morgan *Délégation en Perse* 1, p. 130, Tolman *Lex.* 58.

57. Artaxerxes Vase Inscriptions. On three vases occurs the same line with slight variations:

a. At Saint Mark's, in Venice, published first by De Longpérier RA 2, 446, given also in Kossowicz 106, Spiegel 68 (Qb), Tolman *Lex.* 56, Tolman *Cun. Sup.* 71, Weissbach 120.

b. In the museum in Philadelphia.

c. In the museum in Berlin.

CHAPTER III.

THE ANCIENT PERSIAN WRITING.

58. CUNEIFORM characters, as mere combinations of straight lines, are well adapted for engraving on stone, but not for general writing. The Ancient Persian exhibits the simplest form of cuneiform script, having the fewest signs and the simplest combinations of their elements. It was the fact that the simplest kind of writing always came first in the trilingual inscriptions that led Grotefend to believe that this must have been the most important and therefore the language of the Achæmenidan kings. The stroke is always downward or to the right—*i. e.*, the head of the wedge is always up or to the left and the angles open to the right. The reading likewise is from left to right.

There are thirty-six characters of syllabic value, each composed of from two to five elements. In addition to these are four ideograms of five or six elements each. There are also two word-dividers and eighteen

numerical signs. There are three vowel signs in the syllabary, while the remaining thirty-three signs represent a combination of a consonant with a vowel sound, twenty-two with *a*, four with *i*, and seven with *u*.

59. The following are the cuneiform signs:

SYLLABARY.

𐎠 a ā	𐎩 j^a	𐎳 f^a	𐎽 r^u
𐎡 i ī	𐎪 j^i	𐎲 b^a	𐎾 l^a
𐎢 u ū	𐎫 t^a	𐎴 n^a	𐎺 v^a
𐎣 k^a	𐎬 t^u	𐎵 n^u	𐎻 v^i
𐎤 k^u	𐎰 θ^a	𐎶 m^a	𐎿 s^a
𐎧 x^a	𐎭 d^a	𐎷 m^i	𐏁 $š^a$
𐎥 g^a	𐎮 d^i	𐎸 m^u	𐏂 θ^{ra}
𐎦 g^u	𐎯 d^u	𐎹 y^a	𐏀 z^a
𐎨 c^a	𐎱 p^a	𐎼 r^a	𐏃 h^a

IDEOGRAMS.

𐏋 xšāyaθiya	𐏏 būmi
𐏌, 𐏍 dah	𐏈 auramazdā

WORD-DIVIDERS.



NUMERALS.

1	5	10	22
2	8	15	25, etc.

60. The three vowel signs are used (1) for writing initial vowels, with no distinction of quantity, and (2) theoretically for writing a medial or final long vowel, when added to the corresponding syllable sign.

61. The long vowel almost invariably occurs in the case of an a-consonant + a, but even here it seems certain that the a-sign was sometimes added at the end of a word, not to indicate the quantity of the vowel, but to represent graphically the final a (*scriptio plena*). Thus the gen. sg. ending of a-stems (I. E. -syo, Skt. -sya) is generally written **-hyā**, *i. e.*, **-hy^{a}a**, *e. g.*, **aniyahyā, avahyā, kārahyā**; yet we find in several instances, especially in names of months, the gen. form in **-hya**, *i. e.*, **-hy^a** (*scriptio defectiva*), *e. g.*, **garmapadahya, vahyazdātahya, viyaxnahya**, etc. *Scriptio plena* may be seen again in the vocative of an a-stem, **martiyā** (NRa 56). This subject is discussed in Tolman *Lex.* 105.

The closeness of connection between the genitive and the word following may in some cases account for the variation **-hyā, -hya**. So we find **manā, avadā** (probably originally -a), **avahyā**; but when an enclitic follows, **manacā, avadašiš, avahyarādiy**. (See 586.) But both **utāmaiy** and **utamaiy** occur. The verbal prefix **parā** becomes **para** before forms beginning

with a vowel, *e. g.*, **paraidiy, paraitā** (see 213), but **parāgmatā.**

62. With i- and u-consonants the vowel sign regularly follows, and there is no distinction of quantity; *e. g.*, **d^{i}id^{i}iy = dīdiy, k^{u}ur^{u}u = kūru.**

In a few instances an i- or u-vowel fails to be written after the i- or u-consonant. Such *scriptio defectiva* is illustrated by **v^{i}θam** Bh. 1. 69, 71, **v^{i}štāspahyā** Bh. 1. 2–3, **nabuk^{u}dracara** Bh. 1. 78–79, 84, 93.

63. The vowel signs for **i** and **u** are added to the a-consonant signs to form diphthongs, as **av^{a}ina = avaina, k^{a}ufa = kaufa.**

64. As may be seen from the table above, there are several consonants which show no differentiation of form when followed by an i- or u-vowel. Thus we transliterate **p^{a}t^{a}iy, patiy; p^{a}it^{a}a, pitā; p^{a}uθ^{r}a, puθ^{r}a.** Sometimes we are in doubt whether an a-sound still inheres in the consonant sign before **i** or **u**; thus, *e. g.*, **c^{a}išpi** can be read **caišpi** (Grk. τείσπης) or **cišpi** (Elam. **zišpiš**). See Tolman *Lex.* 89. Likewise it is not always possible to determine consonant groups and finals.

65. Such a system of syllabic writing necessarily gives rise to much ambiguity in the matter of transliteration. The Ancient Persian **ad^{a}m^{a}**, *e. g.*, could be transliterated **ādam** (as Lassen read, mistaking the word for the first pers. aor. of **dā**, *place*), **ādama, ādma, ādm, adam, adama, adma,** or **adm.** It is only by comparison with etymological equivalents—*e. g.*, Skt. **aham**—that we know **adam** to be the correct form. Where this ambiguity exists, the form can generally be determined, as in this instance, by etymological and phonetic laws. Furthermore, for transliteration

of proper names, material is furnished from the Babylonian and Elamite versions, as also from Greek equivalents.

Note.—Since Aryan k̂ (I. E. q) and ĝ (I. E. g) before a palatal vowel were changed to c and j, respectively (145), there could be no need in Ancient Persian for such characters as k^i or g^i. Again, since c and j are palatals, there is no need of characters for c^u and j^u.

66. The Ancient Persian, further, presents the following graphical peculiarities:

1. Final i- and u-vowels are protected by the corresponding semivowels **y** and **v**; *e. g.*, **atiy**, Skt. **ati**; **pātuv**, Skt. **pātu**.

a. The **y** and **v** are regularly not written before enclitics and in compounds before an element beginning with a consonant; *e. g.*, **raucapativā**, **imaivā**, **hauciy**, **haušaiy**, **paribarāhy** (but **patiyābaram**), **paruzanānām** (written also **paruvzanānām**, and again **paruv zanānām**—see *Ind. Verb.* p. 34; we find also **hauvciy**, **hauvtaiy**, **hauvmaiy**).

b. In one word we seem to have **uv** for **ū** before an ending, **paruvnām** (**$p^ar^uuv^an^aam^a$**) in Dar. NRa. 6, 7 (also Art. Pers. a. 6, 7; b. 8–9, 10), written elsewhere **parūnam**.

c. The phrase **dūraiy apiy** is found usually as two words, but in one place where the word-divider is not used the **y** is also omitted, and we have **dūraiapiy**, Dar. NRa. 12; but in Dar. NRa. 46, **dūrayapiy**.

d. After **h** merely **-y**, not **-iy**, is always written at the end of a word, as **ahy**, *you are*, but **amiy**, *I am;* so **paribarāhy**. But with an enclitic following, the vowel is omitted altogether in **paribarāh(i)diš** and **vikanāh(i)diš**.

2. **y** and **v** after consonants appear as **iy** and **uv** (see Tolman *Cun. Sup.* Introd. §§ 14, 19); *e. g.*, **-jamiyā** (Skt. **jamyāt**); **haruva**, Skt. **sarva**.

a. Occasionally **aiy** is written **ay**; *e.* g., **-tay** Bh. 4. 58, **dūray-** Dar. NRa. 46, and the ending **-hay** (I. E. **-sai**) of the 2d sg. mid. pres. in **maniyāhay** (see Tolman *Lex.* 116).

3. Nasals before explosives are not written, nor is final **n**; *e. g.*, **b^{a}d^{a}k^{a}** = **ba^{n}daka**, *subject;* cf. YAv. **band**, Skt. **bandh**, *bind;* **ab^{a}r^{a}** = **abara^{n}**, *they bore;* Skt. **abharan**, I. E. ***ebheront**, Grk. ἔφερον.

NOTE.—One exception in the use of the nasal before an explosive occurs in the compound verb form **hamtaxšataiy**, Dar. NRb. 16.

4. Original nasalization of the vowel in Skt. **çan**, Av. **sa̜h**, seems not to occur in the Ancient Persian forms of **θah**, *say.*

5. The writing shows no double consonants; *e. g.*, Anc. Pers. **θataguš**, but Bab. **sa-at-ta-gu-ú**, Elam. **sa-ad-da-ku-iš**, Grk. Σατταγύδαι.

6. **hy^{a}**, as is mentioned above (1, d), is used as a graphic representation of **h^{i}y**; *e. g.*, 2d sg. pres. act. ending **-hy** (*i. e.*, **-hiy**, I. E. **-si**) in **xšnāsāh^{i}y**, **ah^{i}y**.

7. **h** is not written before **u** (192)—*e. g.*, **aura**, Av. **ahura**—and it is likely it was not pronounced. Cf. Elam. **uramasda**, Bab. **u-ra-ma-az-da** for Anc. Pers. **auramazdā**. However, the Babylonian sometimes appears to preserve the h-sound as shown in the transliteration **a-ḫu-ur-ma-az-da-'**; yet it never occurs with **ḫu** in the Babylonian version of the Behistan Inscription. The **h** of ***vahu** (Skt. **vasu**) in the name **dārayavauš** was lost, though it appears in the gen. **dāray-**

avahauš; so also in the first element of vaumisa, which the Greek (Plutarch) renders Ὠμίσης.

That the h-sound (passing over to x) once belonged before u (uv) in certain places may be inferred from such examples as uvārazmiš, Grk. Χωρασμία; harauvatiš, Grk. Ἀραχωσία.

8. Occasionally h before a or i is not written; *e. g.*, θātiy for θaatiy, cf. aθaha; aištatā for *asištatā (192).

PRONUNCIATION.

67. The vowels a, i, and u have the usual sounds of the corresponding vowels in Sanskrit and Avestan, and when etymology shows them to be long, they are in this work so marked, ā, ī, ū; so, Anc. Pers. xšaθ^{r}a, Av. xšaθra, Skt. kṣatra; Anc. Pers. gāθu, Av. gātu, Skt. gātu; Anc. Pers. ciθ^{r}a, Av. ciθra, Skt. citra; Anc. Pers. jīvā, Av. jivaiti, Skt. jīvati; Anc. Pers. puθ^{r}a, Av. puθra, Skt. putra; Anc. Pers. būmī, Av. būmī, Skt. bhūmī.

Combination of these vowel sounds occurs in the diphthongs ai, au, āi, and āu.

68. *Tenues* and *Mediae* (139).

The tenues k, t, p are pronounced as in the European languages.

The mediae g, d, b are pronounced as the ordinary European g-, d-, and b-sounds, and possibly sometimes as spirants (= Av. γ, δ, w).

The palatals c and j were somewhat like the tš- and dž-sounds in the Italian *cento*, *gente;* English *church*, *judge*. It is possible that j in certain words was spoken as spirant ž; *e. g.*, in nijāyam (= Iran. niš + āyam); cf. Av. niz before sonants.

As Ar. **cy** became in Anc. Pers. **šy** (150), **j** of the combination **jy** may have been pronounced **ž**, in **adurujiya**, *he lied*, Av. **družaiti**, Skt. **druhyati**.

It may be noted also that the proper name **kaⁿbūjiya** is rendered in Greek Καμβύσης.

69. *Spirants* (139).

x, **θ**, **f** have the same sounds as in Av.; **x** as ch in the Scotch *loch*, Mod. Grk. χ; **θ** as th in Eng. *thin;* **f** as in English.

The sound indicated by the ligature θ^r is uncertain; *e. g.*, corresponding to the Av. **miθra** we should expect ***miθʳa**, but we find this word written **mⁱθra**, **mⁱtra**, **-misa** (**vau-misa**); cf. Elam. **mi-iš-ša**, Bab. **mi-it-ri**, Grk. Μιτρα-δάτης.

The sibilants **s**, **š**, **z** are pronounced as in Av., **š** much as the *sh* of English.

70. *Nasals.*

n and **m** have their ordinary pronunciation. For the omission, in writing, of nasals medial before explosives, and final, see 66. 3.

71. *Semivowels* and *Liquids.*

The semivowels **y** and **v** are pronounced as in Av.; when initial they perhaps had something of a spirantal value. It is possible also that **iy** and **uv** after consonants were more or less spirantal in force, as in **šiyāti**, **θuvām**.

r is a liquid, but the value of this sign when representing Primitive Aryan vocalic **r̥** is uncertain. We transliterate **ar**, *e. g.*, Anc. Pers. **karta**, Skt. **kr̥ta**.

It has been held that there must have been in pronunciation, although not in writing, a distinction between the consonant **ra** (or **ar**) and the vowel **r̥**. Meillet would even assign to the initial **a** before **r** the

value of the Semitic *aleph* and read **'rštām, 'rštiš** for **arštām, arštiš**; but cf. Tolman, AJP 36, 462.

It is worthy of note that **l** occurs only in two foreign names: **haldita** (Elam. **altita**) and **dubāla**, both in Bh. 3. 79. The Bab. **l** is represented by the Anc. Pers. **r** in **tigrām**, Bab. **di-iḳ-lat**.

72. *Aspiration.*

h has its ordinary pronunciation, but the aspiration in certain positions seems to have been very weak. For the omission of **h** before **u** and medially before other vowels, see 66. 7; 192.

CHAPTER IV.

THE INDO-EUROPEAN LANGUAGES.

73. THE following is, in general, the classification of Indo-European languages usually given by philologists.

INDO-EUROPEAN FAMILY.

I. Indo-Iranian (75).
 1. Indian: A. Sanskrit (Old Indian), *a.* Vedic, *b.* Classical.
  B. Prākrit and Pāli (Middle Indian).
  C. Hindi and other Modern Dialects (New Indian).
 2. Iranian: A. Old Iranian (76).
  a. (West) Ancient Persian (Language of the court).
  b. (East) Avesta (77-79) (Sacred Literature).
   a. Gāthā-Avesta.
   b. Younger Avesta.

B. Middle Iranian: Pahlavī or Middle Persian.
C. New Iranian: *a.* Modern Persian and related dialects, as
b. Kurdish. *f.* Balūčī.
c. Ossetish. *g.* Caspian Group.
d. Afghan. *h.* Central Group.
e. Pamir.

II. Armenian.

III. Greek.
1. Ionic-Attic.
2. Doric.
3. Northwest Greek.
4. Elian.
5. Arcadian-Cyprian.
6. Aeolic, Northeast Greek.
7. Pamphylian.

IV. Albanian.

V. Italic.
1. Latin, from which are Portuguese, Spanish, Catalanian, Provençal, French, Italian, Rætoromanic, Roumanian.
2. Other Italic Dialects, as Oscan-Umbrian, Messapian, Venetian, Ligurian.

VI. Keltic.
1. Gallic.
2. British: A. Welsh, B. Cornish, C. Breton.
3. Gaelic: A. Irish, B. Scotch, C. Manx.

VII. Germanic.
1. East Germanic: A. Gothic.
B. Norse.
2. West Germanic: Anglo-Saxon, Frisian, Low German (Old Saxon), Old High German,

Old Low Franconian (whence Dutch and Flemish).

VIII. Balto-Slavonic.

1. Baltic: Old Prussian, Lithuanian, Lettic.
2. Slavonic: A. Southeastern Group, including Russian, Bulgarian, Servian, Croatian, Slovenian.
   B. Western Group, including Bohemian (Czech), Sorbian (Wendish), Polish, Polabish.

To these groups is to be added Tocharian, the newly discovered Indo-European language from Chinese Turkestan.

74. Indo-European. Other names that have been used for this family of languages are Aryan, Indo-Germanic, Indo-Keltic. The first of these is objectionable, since the term belongs properly only to the Indo-Iranian group. The Sanskrit word **ārya** means *honorable* or *excellent* and was applied originally to the three higher classes of the Indian people. Darius called himself (NRa 14) an Aryan, son of an Aryan, and the Zoroastrians call themselves Aryan. Indo-Germanic, as giving the extreme limits of the territory occupied by the peoples of this family, is a name preferred by the Germans. But the Kelts are omitted unless, indeed, the "Germanic" limit be Iceland. It was this objection that led some, after the Keltic had been ascertained as belonging to the family, to suggest the name Indo-Keltic; but this has not come into common use. Indo-European is perhaps more nearly satisfactory than the other terms, but even here the first element is too restricted and the second too comprehensive, for the Iranian must be included

with the Indian, and some of the European languages must be excluded from the family, while no provision is made for the Armenian. The Tocharian, furthermore, the language recently discovered in Chinese Turkestan, is not included by the use of any of these names.

75. **Indo-Iranian** (Aryan). The chief characteristic of the Indo-Iranian group is the leveling of Indo-European a-, e-, and o-sounds to the a-sound. As will be seen below (79), this a in Av. suffered later changes. The following are examples of the Indo-Iranian leveling of the vowels: I. E. ***apo**, Skt. **apa**, Anc. Pers. **apa-**, YAv. **apa**; I. E. ***esti**, Skt. **asti**, Anc. Pers. **astiy**, Av. **asti**; I. E. ***māter**, Skt. **mātar**, Anc. Pers. **-mātar**, Av. **mātar**; I. E. root ***dhē**, Skt. **dhā**, Anc. Pers. **dā**; I. E. root ***dō**, Skt. **dā**, Anc. Pers. **dā**, Av. **dā**.

76. **Old Iranian.** Both the Ancient Persian and the Avestan are, of course, closely related to the Sanskrit. As common Iranian characteristics distinguishing these two languages from the Sanskrit may be mentioned briefly the following:

(1) The original mediæ aspiratæ (139) **gh, dh, bh** become the simple mediæ **g, d, b**. They so remained in the Gāthā dialect (77) of the Avestan, but in the Younger dialect, and probably sometimes in Ancient Persian, they became voiced spirants; *e. g.*, Skt. **dīrgham**, Anc. Pers. **dargam**, GAv. **darəga**, YAv. **darəγa**; Skt. **adha**, Anc. Pers. **ada**, GAv. **adā**, YAv. **aδa**; Skt. **abhi**, Anc. Pers. **abiy**, GAv. **aibī**, YAv. **aiwi**.

(2) The original tenues (139) **k, t, p** are regularly changed before consonants into the spirants **x**, *θ*, **f**;

e. g., Skt. **kṣatra**, Anc. Pers. **xšaθʳa**, Av. **xšaθra**; Skt. **pra**, Anc. Pers. **fra-**, Av. **frā**.

(3) Original initial **s** becomes **h**, but in Anc. Pers. is not written before **u**; *e. g.*, Skt. **soma**, Anc. Pers. **hauma-**, YAv. **haoma-**; Skt. **su-**, Anc. Pers. **u-**, Av. **hu-**. Medial **s** may be written in Anc. Pers. as **h** (always omitted before **u**) and in Av. as **ṅh**; *e. g.*, Skt. **vasu**, Anc. Pers. **-va(h)u**, YAv. **vaṅhu**.

(4) The development of soft sibilants; *e. g.*, Skt. **asuro medhās**, Anc. Pers. **auramazdā**, Av. **ahura mazdāh**.

(5) Original **(k̂-)sk̂(h)**, Skt. **ch**, is represented by **s**; *e. g.*, Skt. **pṛchāmi**, Anc. Pers. **aparsam**, Av. **pərəsāmi**.

77. **The Avesta.** This is the language of the oldest writings of the Zoroastrians, the sacred books of the Ancient Persians and (with dialectic changes) of the Modern Parsis. The name Avesta is from **avistāk**, which, in the Pahlavī of the Sassanian period, meant *scriptures*, perhaps originally signifying *knowledge*, like the Veda of India, or possibly meaning *ordinance*, *law*. The term Zend or Zend-Avesta is inaccurately used from the frequently recurring phrase **avistāk va zand**, *the law and the commentary*, or *the holy text and the interpretation*. In age the language of parts of the Avestan text almost equals the Vedic dialect of the Sanskrit, but some of the younger portions are very late.

Gāthās means *songs*, that is, the metrical sermons of Zoroaster. The Younger Avesta bears much the same relation to the Gāthās as Classical Sanskrit bears to the Veda or Classical Greek to Homer.

78. It has long been a mooted question as to how far the Mazdeism of the Avesta and the Mazdeism of

the Persian Inscriptions are identical. There is much to show that the religion of the Achæmenidan kings was in close accord with that of the Avestan teaching. In the newly discovered material on the lower inscription of the grave of Darius (37), Tolman (AJP. 31, 80) compares a mutilated passage with an Avestan theologic phrase which may serve to show that the king was really employing an expression peculiar to the sacred books.

79. (1) In phonetic and grammatical structure the Ancient Persian and the Avestan are very similar, but the Avestan developed e- and o-sounds out of the a-vowel and introduced several diphthongs. Avestan **ə** (84) is often written for Ancient Persian **a** before **m** or **n**, generally so before final **m**: *e. g.*, Av. **upəməm**, Skt. **upamam**. The Avestan **ərə** (**arə**) corresponds to the Ancient Persian (**a**)**r**, Sanskrit **r̥**; *e. g.*, Av. **pərəsāmi**, Anc. Pers. **aparsam**, Skt. **pr̥chāmi**. In Younger Avestan **e** was written for **ya** in words of more than one syllable; *e. g.*, the YAv. gen. ending **-a-he** for Anc. Pers. **-a-hya**, Skt. **-a-sya**. The Avestan regularly shortened original long final vowels (except **ō**), as YAv. **pita**, Anc. Pers. **pitā**, Skt. **pitā**. But the Gāthā dialect lengthened all original short final vowels, the Younger Avestan those of monosyllables only; as, Av. **frā**- Anc. Pers. **fra**, Skt. **pra**. **i** and **u** are regularly written long before final **m** in Avestan; *e. g.*, Av. **paitīm**, Skt. **patim**; Av. **mainyūm**, Skt. **manyum**.

(2) A marked feature of this language is the epenthetic **i** or **u** when the following syllable contains **i, ī, e, ē, y,** or **u, v**; *e. g.*, Av. **bavaiti**, Anc. Pers. **bavātiy**. Epenthesis of **u** takes place before **r**, as YAv. **haurva**, Anc. Pers. **haruva**.

(3) The Avestan generally omits the augment, while the Ancient Persian retains it except in injunctive forms, *e. g.*, Av. **barəm**, Anc. Pers. **abaram**, Skt. **abharam**.

(4) Final **-as** of the Sanskrit is written in Avestan as **-o** and in Ancient Persian as **-a**; *e. g.*, Skt. **putras**, Av. **puθrō**, Anc. Pers. **puθ^ra**. Final **-ās** of the Sanskrit appears as **å** in Avestan and **ā** in Ancient Persian; *e. g.*, Skt. **senāyās**, Av. **haēnayå**, Anc. Pers. **hainâyā**.

(5) Sanskrit **j** is often represented in Avestan by **z**, in Ancient Persian by **d** (*i. e.*, δ) or **z** (158); *e. g.*, Skt. **jrayas**, YAv. **zrayah**, Anc. Pers. **drayah**. These same sounds also represent what in Sanskrit became **h**; *e. g.*, Skt. **hasta**, Av. **zasta**, Anc. Pers. **dasta**. Sanskrit **çv**, represented in Ancient Persian by **sp** and **s** (219. 2. a), appears in Avestan as **sp**; *e. g.*, Skt. **açva**, Anc. Pers. **aspa-**, **asa**, YAv. **aspa**. Avestan **š** represents **rt** of the Sanskrit and the Ancient Persian, as, Av. **mašya**, Skt. **martya**, Anc. Pers. **martiya**.

80. **Pahlavī.** The Ancient Persian is the mother tongue of both Middle and Modern Persian. The name Pahlavī, from Pers. **pahlav**, *hero*, Anc. Pers. **parθava**, *Parthian*, Skt. **pahlava**, *Persian*, is applied to the Persian language of the middle period, from the third to the ninth or tenth century. It is a mixture of speech where Semitic words are used side by side with Persian, or Semitic words with Persian terminations. According to Ibn Moḳaffá (of the eighth century), the Persian of this period had about a thousand words written in Semitic form, but pronounced in Persian. **malkān malkā**, *e. g.*, *king of kings*, was spoken as **šāhān šāh**—much as we read Latin abbreviations in English by the English equivalents.

In its grammatical forms and its phonology, Pahlavī is much nearer to the Modern Persian than to the Ancient Persian. The inflectional forms are much fewer in number than those of the older language; distinctive forms for gender are no longer used; the case endings are practically lost, the commonly recurring **-ān** (possibly derived from the Anc. Pers. **-ānām** of the gen. pl. of **ā**-stems) being used as a plural suffix, while the genitive or adjectival relation is expressed by the short vowel **-i-** (probably from the Anc. Pers. pronoun **hya**); case relations are expressed by prepositions; and compound verb forms are common. Some of the phonological characteristics of Pahlavī are mentioned below in comparison with the New Persian.

81. New Persian. The relation of the New to the Ancient Persian presents something of a parallel to the relation of Modern English to Anglo-Saxon, in that an analytic language has developed from one highly inflectional. Modern Persian has also been influenced by the introduction of Arabic words, especially in the written language. With the loss of inflections has come a corresponding development of syntax. Some interesting points of difference between the phonology of the ancient language and that of the New Persian are the following:

(1) Original initial **a** has been lost; *e. g.*, Anc. Pers. **aθaⁿgaina**, *of stone*, Av. **asənga**, New Pers. **sang**.

(2) Ancient Persian **ai** (Phl. **ē**) became in New Persian **ē, ī**, while Ancient Persian **au** (Phl. **ō**) became **ō, ū**; *e. g.*, Anc. Pers. **naiba**, *beautiful*, Phl. **nēv(ak)**, New Pers. **nēv**; Anc. Pers. **raucah**, *day*, Av. **raocah**, Phl. **rōc**, New Pers. **rōz.**

(3) **k, t, p, c** of Ancient Persian may appear as **g, d, b, z**, respectively (especially between vowels); *e. g.*, Av. **sukuruna**, *porcupine*, Phl. **sukur**, New Pers. **sugur(nah)**; Anc. Pers. **brātar**, *brother*, Av. **brātar**, New Pers. **birādar**; Anc. Pers. **āp**, *water*, Phl. **āp**, New Pers. **āb**; Anc. Pers. **raucah**, *day*, Av. **raocah**, Phl. **rōc**, New Pers. **rōz**.

(4) Ancient Persian **f** and **θ** sometimes appear as **h**; *e. g.*, Anc. Pers. **kaufa**, *mountain*, Av. **kaofa**, Phl. **kōf(ak)**, New Pers. **kōh**; Anc. Pers. **gāθu**, *place*, Av. **gātu**, New Pers. **gāh**.

(5) Original **d** and **dh** may appear as **y**, the **y** being interposed on account of the loss of either letter between vowels; *e. g.*, Skt. **khādati**, New Pers. **xāyad**; Skt. **vadhū**, New Pers. **bayō**.

(6) **y** often appears as **j**; as, Av. **yava**, *barley*, New Pers. **jav**.

(7) The succession of two consonants at the beginning of a word is avoided by inserting or prefixing a vowel; as, New Pers. **birādar**, Anc. Pers. and Av. **brātar**, *brother* (cf. 215).

82. Some Other Dialects. (a) *Kurdish*, though in general very much like the New Persian, is distinguished by a shortening of words, as **barā** for New Pers. **birādar**. (b) *Ossetish*, which, along with the *Yagnobi* and the more ancient *Sogdian*, is a representative of the Scythian dialects, in its phonology resembles the Armenian, in its structure is analytic. Its ten cases are formed by postpositions. (c) *Afghan* has suffered many corruptions in its vowel system and has many loan words, chiefly from the Persian, but also from Arabic and Indian. (d) *Balūčī* presents a consonantal system older than that of any other

modern Persian dialect, showing in this respect much the same stage of development as the Pahlavī. (e) The *Chaldeo-Pahlavī* inscriptions and the texts of the *Turfan MSS.* represent a northwest dialect, probably that of the Arsacids.

CHAPTER V.

THE VOWELS.

1. THE INDO-EUROPEAN VOWEL SYSTEM.

83. THE Indo-European language had the following vowel-sounds:

Simple Vowels: a, ā, e, ē, i, ī, o, ō, u, ū, ə.
Diphthongs: ai, āi, ei, ēi, oi, ōi, əi, au, āu, eu, ēu, ou, ōu, əu.
Vocalic Nasals: n̥, n̥̄, m̥, m̥̄.
Vocalic Liquids: r̥, r̥̄, l̥, l̥̄.

84. Most of the simple vowels are regarded as having the same value as in European languages. ə, *schwa*, is an indeterminate vowel, the value of which is somewhat the same as that of *a* in the English *sofa* or *e* in the German *Gabe*. It resulted from the weakening of the original ā, ē, or ō (cf. 120, 129).

85. Nasals and liquids may be either vowels or consonants, their value being determined by their position. Following a vowel, they are consonantal; elsewhere, vocalic. As vowels they are represented graphically by n̥, m̥, r̥, l̥, and their sounds occur in such English words as *gotten*, *fathom*, *lucre*, *apple*, *i. e.*, *gottn̥*, *fathm̥*, *lucr̥*, *appl̥*. The n-sound, whether vocalic or consonantal, becomes palatal or velar (133,

139) before the corresponding explosives; and in this work n̥, n represent these sounds in such combinations.

86. As to whether long vocalic nasals and liquids existed in the parent language, scholars are not agreed. Theoretically, n̥̄, m̥̄, r̥̄, l̥̄ would arise from the loss of e in the combinations enə, emə, erə, elə; but no Indo-European language has preserved a long vocalic nasal or liquid, and even among those who contend for the existence of these sounds in the parent speech the question of their development in the derived languages is by no means satisfactorily solved.

Even if Latin and Greek forms apparently developed from Indo-European long vocalic nasals and liquids be explained as merely heavy dissyllabic bases with loss of the first vowel (129) and the preservation of the long vowel of the second syllable, still there remain forms in other languages which are not so to be explained; *e. g.*, Skt. jātaḥ (cf. Lat. gnātus) points to an I. E. *ĝn̥̄tos, and Skt. dāmyati to a root dm̥̄. The long vocalic nasals and liquids are, therefore, taken up in the following discussion of Indo-European vowels as they come into Ancient Persian.

2. INDO-EUROPEAN VOWELS IN ANCIENT PERSIAN.

a.

87. I. E. a remained in Anc. Pers., as in the oldest periods of practically all the other languages of the family (but the Balto-Slav. shows o); *e. g.*, I. E. *apo, *from*, Anc. Pers. apa-, YAv. apa, Skt. apa, Grk. ἄπο, Lat. ab, Goth. af; Grk. ἄκμων, *anvil*, Anc. Pers. asman, *anvil-stone*, *heaven*, YAv. asman, Skt. açman; I. E. *bhago, *god*, Anc. Pers. baga, YAv. baγa (Mid.

Pers. baγ, Turfan MSS. bagiystòm), Skt. bhaga, Slav. bogŭ (cf. Phrygian Ζεῦς Βαγαῖος); Grk. ἅζομαι, *honor*, Anc. Pers. yad, Av. yaz (Mid. Pers. yaštan, New Pers. yazdān), Skt. yaj; I. E. *awe, *down*, Anc. Pers. ava, Av. ava, Skt. ava.

ā.

88. I. E. ā (Germanic, Lith. ō, O. Slav. a) remained in Anc. Pers. along with the other Indo-Iranian languages, as also in Greek (except Ionic-Attic dialects) and in Latin; *e. g.*, I. E. *māter, *mother*, Anc. Pers. -mātar, Av. mātar, Skt. mātar, Grk. (Dor.) μᾱ́τηρ, Lat. māter, A. S. mōder; I. E. *bhrātor, *brother*, Anc. Pers. brātar (New Pers. birādar, Kurd. barā, Oss. arvāda), Skt. bhrātṛ, Grk. φρᾱ́τηρ, Lat. frāter; Grk. (Dor.) ἵστᾱμι, *stand*, Anc. Pers. stā, Av. stā, Skt. sthā.

e.

89. I. E. e, which was either kept or modified to i in most other groups, became a in the Indo-Iranian languages; *e. g.*, I. E. *qe, *and*, Anc. Pers. -ca (written -cā), Av. -cā, Skt. -ca, Grk. τε, Lat. -que; I. E. *eti, *beyond*, Anc. Pers. atiy, YAv. aiti (79. 2), Skt. ati, Grk. ἔτι, Lat. et; I. E. *eĝ(h)o(m), *I*, Anc. Pers. adam, Av. azəm, Skt. aham, Grk. ἐγώ, Lat. ego; I. E. *eḱwo, *horse*, Anc. Pers. aspa-(asa), YAv. aspa (New Pers. asp, Afγ. aspā), Skt. açva, Lat. equus; I. E. *esti, *is*, Anc. Pers. astiy, Av. asti, Skt. asti, Grk. ἔστι, Lat. est; I. E. *pet, *fly*, Anc. Pers. pat, YAv. pat, Skt. pat, Grk. πέτομαι; I. E. *peri, *about*, Anc. Pers. pariy, Av. pairi (79. 2) (New Pers. par-), Skt. pari, Grk. πέρι; I. E. *sed, *sit*, Anc. Pers. had, YAv. had, Skt. sad,

Grk. ἕδος; I. E. *bher, *bear*, Anc. Pers. bar, Av. bar, Skt. bhr̥, Grk. φέρω, Lat. fero; I. E. *nepō(t), *descendant*, Anc. Pers. napāt, Av. napāt (New Pers. nava), Skt. napāt, Lat. nepōs.

The change of Indo-European e to a seems to belong to the primitive Aryan period and did not occur until after the e had changed the preceding velar to a palatal (145), as is shown in the example above, *qe > *ce > ca. Bartholomae holds that this change took place in the Indo-European period, but the general view is that it belongs to the Aryan.

ē.

90. I. E. ē, retained as ē in Grk. (generally), in Lat., and in Goth., as ė in Lith., āe in A. S., ĕ in O. Slav., and ī in O. Irish, became ā in the Indo-Iranian group; *e. g.*, I. E. *dhē, *put*, Anc. Pers. dā, Av. dā, Skt. dhā, Grk. τίθημι, Lat. fēci; I. E. *ēsm̥, *I was*, Anc. Pers. āham, Grk. (Hom.) ἦα; nom. sg. of tēr-stems, I. E. *tē(r), Anc. Pers. pitā, *father*, -mātā, *mother*, Grk. πατήρ, (Dor.) μάτηρ.

i.

91. I. E. i remained in the Indo-Iranian group as well as in the older periods of almost all the other derived languages. In Latin before r, s and when final it appears as e. Examples are: I. E. *qid, indefinite particle, Anc. Pers. -ciy, YAv. -cit̰, Skt. -cid (cf. Grk. τι); I. E. *esti, *he is*, Anc. Pers. astiy, Av. asti, Skt. asti, Grk. ἔστι; I. E. *idhi, *go thou*, Anc. Pers. -idiy, Skt. ihi, Grk. ἴθι; Grk. πέρι, *around*, Anc. Pers. pariy, Av. pairi, Skt. pari.

ī.

92. I. E. ī, like i, remained in Anc. Pers., as in the oldest periods of the other I. E. languages; *e. g.*, I. E. *gīwos, *living*, Anc. Pers. jīvahyā, Skt. jīva.

o.

93. I. E. o occurring as o in Grk. and O. Slav., as o (u) in Lat. and O. Irish, was changed to a in the Indo-Iranian group, as also in Goth. and Lith.; *e. g.*, I. E. *bheronti, *they bear*, Anc. Pers. bara^{n}tiy, Av. barainti (79. 2), Skt. bharanti, Grk. (Dor.) φέροντι, Lat. ferunt, Goth. bairand; I. E. *owo, *that*, Anc. Pers. ava, Av. ava; I. E. *pro, *before*, Anc. Pers. fra-, Av. frā (79. 1), Skt. pra, Grk. πρό, Lat. pro (later prō); I. E. *syo, demonstr. pron., Anc. Pers. hya, Skt. sya; acc. sg. o-stems, I. E. *-om, Anc. Pers. -am, Skt. -am, Grk. -ον, Lat. -om (-um).

The Aryan a<I. E. o is, of course, distinguished from Aryan a<I. E. e by the fact that the velar is not palatalized before it (145). Some philologists have held that, while I. E. o in closed syllables and final became a, o in open syllables probably became ā in the primitive Aryan period. Brugmann (KVG 104, Anm.) still regards this theory as tenable. However, the apparent development of ā from I. E. o, as in Anc. Pers. asmānam, Skt. açmānam, Grk. ἄκμονα, is probably to be otherwise explained, perhaps as an extended grade of the vowel by analogy.

ō.

94. I. E. ō became ā in the Indo-Iranian languages, as also in O. Irish, appearing as a in O. Slav., ů in

Lith., but remaining ō in the Germanic group and in Grk. and Lat.; *e. g.*, I. E. *dō, *give*, Anc. Pers. dā, Av. dā, Skt. dā, Grk. δίδωμι; I. E. *ĝnō, *know*, Anc. Pers. xšnā, Av. xšnā (Turfan MSS. ʿišnàsèd, New Pers. šināsad), Skt. jñā, Grk. γιγνώσκω, Lat. gnōsco.

u.

95. I. E. u remains in the oldest period of all the languages of the family; *e. g.*, I. E. *su, *well*, Anc. Pers. u-fraštam, Av. hu-, Skt. su-, Grk. ὑ-γιής; I. E. *upo, Anc. Pers. upa (written upā), Av. upa, Skt. upa, Grk. ὕπο, Lat. sub; Anc. Pers. puθʳa, Av. puθra, Skt. putra, Lat. putus; loc. pl. suffix -su, Anc. Pers. mādai-šuv-ā, Av. aspaē-šu, Skt. açve-ṣu, O. Lith. knygo-su, O. Bulg. rąka-chŭ; I. E. *ud, *up*, Anc. Pers. ud, us (=ud+s), Av. us, (Mid. Pers. uz), Skt. ud, Grk. (Cypr.) ὐ (=ἐπί in meaning), as ὕστερος, *later* (= Skt. uttara), Eng. utter (Goth. ūt); I. E. particle u in demonstr. pron. *so-u, Anc. Pers. hauv, YAv. hāu, Skt. a-sāu, Grk. οὗτος.

ū.

96. I. E. ū remains in the older forms of the derived languages in general; *e. g.*, I. E. *dū or *deu, *be apart*, Anc. Pers. dū-raiy, Av. *dūra (New Pers. dūr, Kurd. dūr), Skt. dūra, Grk. (Hom.) δεύομαι; Grk. νῦν (νύ), Anc. Pers. nūram, Av. nūrəm, nū, Skt. nu (Ved. nū), Germ. nun, nu, A. S. nū, nu.

ə.

97. I. E. ə became i in the Indo-Iranian group, but in the other languages a; *e. g.*, I. E. *pətēr, *father*,

Anc. Pers. **pitar**, Av. **pitar**, Skt. **pitar**, Grk. πατήρ, Lat. **pater**, O. Irish **athir**, Goth. **fadar**, O. H. G. **fater**, Eng. **father**. The I. E. suffix *-**əs** occurs in Anc. Pers. **hadiš**.

Even in the Indo-Iranian languages **ə** was changed to **i** only before consonants, while the diphthongs **əi** and **əu** became **ai** and **au**, as in the other languages.

ai.

98. I. E. **ai** remained **ai** in Anc. Pers., as also in Grk. (generally), Lith. (**ė**), and Goth. (**ái**), becoming **e** in Skt., **ae** in Lat. and O. Irish, **ā** in A. S., and **ě** in O. Slav.; *e. g.*, I. E. ***bheretai**, *he bears*, Anc. Pers. **vainataiy**, Av. **vaēnaite**, Skt. **bharate**.

ei.

99. I. E. **ei**, which remained in Grk. and O. Lat. (later **ī**) and Lith. (**ė**), appearing as **e** in Skt. and O. Irish, as **ī** in A. S. and Goth., as **i** in O. Slav., became **aē**, **ōi** in Av. and **ai** in Anc. Pers.; *e. g.*, I. E. ***eiti**, *he goes*, Anc. Pers. **aitiy**, Av. **aēiti**, Skt. **eti**, Grk. εἶσι, Lat. **īt** (**it**).

ēi.

100. I. E. **ēi̯** became **āi** in Anc. Pers., as is seen in the heavy augmented stem **ēi** of the root **i**, *go; e. g.*, I. E. ***ēym̥**, Anc. Pers. -**āyam**, Skt. **āyam**, Grk. ᾖα (for ἦα < ἤϳα).

oi.

101. I. E. **oi**, found as **oi** in Grk., O. Lat., and O. Irish, occurring in Skt. as **e**, Goth. **ai**, A. S. **ā**, Lith. **ai**, O. Slav. **è**, became in Anc. Pers. **ai** (Av. **ae**, **ōi**);

e. g., I. E. *oiwo, *one*, Anc. Pers. aiva, Av. aeva, Grk. (Cypr.) οἶϝος. So the pronominal ending nom. pl. masc., as in I. E. *toi, *they*, Skt. tē, Av. tē, occurs in Anc. Pers. tyaiy, *who*, from original stem *tyo. The I. E. opt. sign oi (<o-ī-) appears in Anc. Pers. vināθayaiš (Tolman *Cun. Sup.* 119), Av. barōiš, Skt. bhareṣ, Grk. φέροις, Goth. baíráis.

āu.

102. I. E. āu remained in Anc. Pers. as āu; *e. g.*, I. E. *nāus, Anc. Pers. nāu- in nāviyā (New Pers. nāv), Skt. nāus, Grk. ναῦς (*νᾱυς).

eu.

103. I. E. eu, retained in Grk., and appearing as o in Skt. and O. Irish, as ou in O. Lat. (later ū), iu in Goth., ēo in A. S., and u in O. Slav., became au in Anc. Pers., as also in Lith., Av. ao (əu); *e. g.*, I. E. *ĝeus-, *taste*, Anc. Pers. dauštar (New Pers. dōst), *friend*, Skt. joṣṭar, Grk. γευστήριον, Goth. kiusan, A. S. cēosan, *choose;* I. E. high-grade root (120) *bheu in *bheweti, *he becomes*, Anc. Pers. bavātiy (subj.), Skt. bhavati.

ēu.

104. I. E. ēu occurs in the Indo-Iranian group as āu; *e. g.*, I. E. *-ēu, ending of loc. sg. of u-stems (286), Anc. Pers. -āu, Skt. -āu, as in Anc. Pers. bābirauv (272), gāθavā.

ou.

105. I. E. ou became au in Anc. Pers. and had the same treatment in the various languages as eu above,

except that it appears as **au** in Goth. and **ēa** in A. S.; *e. g.*, ending of gen. sg. of u-stems, I. E. ***-ous**, Anc. Pers. **kūr-auš**, Av. **vay-aoš**, Skt. **sun-os**.

n̥, m̥.

106. I. E. **n̥** and **m̥** became in Lat. **en, em**, Germanic **un, um**, Lith. **in, im**, O. Slav. **ę** (**in, im**), but in the Aryan languages as in Grk., when final or before consonants except semivowels, they became **a**, and before vowels and semivowels **an, am**, properly representing **n̥n, m̥m**. Sometimes they are written **n̥n, m̥m** before vowels and **n̥, m̥** before semivowels. Some scholars maintain that in a certain number of cases a residuum of the reduced vowel remained, and accordingly write **ᵉn, ᵉm**, holding that the ᵉ is represented in Indo-Iranian by **a**, and the consonants **n** and **m** remained. Examples are: I. E. ***bhn̥dhto**, *bound*, Anc. Pers. **basta**, Av. **basta**, Skt. **baddha**; neg. prefix, I. E. ***n̥-**, ***n̥n-**, Anc. Pers. **a-, an-**, Av. **a-, an-**, Skt. **a-, an-**, Grk. ἀ-, ἀν-, Germanic **un-**, Lat. **in-** (for **en-**); I. E. ***k̂m̥tom**, *hundred*, Anc. Pers. **θata-**, Av. **satəm**, Skt. **çatam**, Grk. ἑ-κατόν, Lat. **centum**, Goth. **hund**, Lith. **szim̃tas**; I. E. ***gm̥myēt**, *may he go*, Anc. Pers. **ā-jamiyā**, Skt. **gamyāt**.

107. I. E. final **m̥** after consonants in the acc. sg. and in the secondary ending of the 1st pers. sg. becomes **am** in Indo-Iranian, as if we should write the antesonantal **m̥m**; *e. g.*, Anc. Pers. **asmānam** (< I. E. **-n-m̥**), **framātāram**, (< I. E. **-r-m̥**), **viθam** (< I. E. **-m̥**), **āham** (< I. E. ***ēs-m̥**), Skt. **āsam**. These forms may have been influenced by those ending in consonantal **m**, as **kāra-m, abara-m**. The Grk., on the other hand, shows only α, as πόδ-α, (Hom.) ἦ-α.

r̥, l̥.

108. I. E. r̥ in the derived languages was treated differently, according to its position. Before consonants and when final it remains as r̥ in Skt., appearing in Av. as ər generally, Grk. αρ or ρα (only αρ final), Lat. or (ur), Germanic ur (ru), Balto-Slav. ir. Before vowels it becomes in Skt. ur or ir, Av. ar, Grk. αρ, Lat. ar, Germanic ur, Balt. ir, Slav. ir. In Anc. Pers. it appears as ar except before n; *e. g.*, I. E. *pr̥k̑sk̑(h)ō, Anc. Pers. aparsam, Av. pərəsāmi, Skt. pr̥chāmi.

I. E. r̥r appears in Anc. Pers. tara-, *beyond*, YAv. tarō, Skt. tiras.

109. I. E. r̥ becomes u in Anc. Pers. before n; *e. g.*, Anc. Pers. akunavam, Skt. akr̥ṇavam, and this weak stem ku was carried over to the aor. 3d sg. akutā, Skt. akr̥ta, and aor. 1st pl. akumā.

For this approximation of I. E. r̥ to the sound of u in Anc. Pers., cf. Tolman, *The Middle Iranian Representation of I. E. r̥*, PAPA 45, xviii. ff.

110. The treatment of l̥ in the various languages is, for the most part, analogous to that of r̥; l̥l appears in Anc. Pers. as ar; *e. g.*, I. E. *pl̥lu, *many*, Anc. Pers. paru, YAv. pouru, Skt. puru.

n̥̄, m̥̄.

111. I. E. n̥̄ appears as ā in Anc. Pers., Av. ān or ā, Skt. ān or ā, Grk. νᾱ (νη), Lat. nā; *e. g.*, I. E. *ĝn̥̄-nā-, Anc. Pers. a-dā-nā (New Pers. dānaδ), Av. zānənti; cf. Tolman *Cun. Sup.* §11, Keller KZ 39, 195. To suppose, as Hirt does, that Skt. jānāti received the ā of the root from the participle *jāta, I. E. *gn̥̄-to (*Ablaut* 321; Brugm. KVG 196. Anm. 1) is very difficult.

We could hardly imagine a participle *žāta which became obsolete in the Aryan period and yet had influence enough to extend its long vowel to the present system. The I. E. n̥̄ doubtless belongs to the stem of the present system. Cf. Reichelt *Aw. Elem.* 205; Keller KZ 39, p. 157.

112. I. E. m̥̄ has the same treatment as n̥̄, occurring as **ā** in Anc. Pers., Av. **ām** or **ā**, Skt. **ām** or **ā**, Grk. μᾱ (μη), Lat. **mā**. An Anc. Pers. example of **ā** < I. E. m̥̄ is probably preserved in **gāθu**, Av. **gātu** (New Pers. **gāh**), Skt. **gātu**, from I. E. ***gm̥̄-tu-**. See Tolman *Cun. Sup.* §11, Reichelt KZ 39, p. 26. In Skt. **gamiṣyati** (I. E. ***gemə-**) bears the same relation to **gātu** (I. E. ***gm̥̄-tu-**) as **bhavitum** (I. E. ***bhewə-**) bears to **bhūta** (I. E. ***bhū-**). Some philologists propose an I. E. root ***gā** parallel to ***gem**, but this is only pushing the difficulty back to an earlier stage, as Hirt, *Ablaut* 752, has shown. Such a hypothetical root is not necessary even to explain Skt. **agās**, **agāt**. Cf. Reichelt KZ 39, p. 40; Tolman, PAPA 46. The Skt. **sūtu**, *birth*, shows the **-tu** suffix with a correspondingly reduced form of base.

r̥̄, l̥̄.

113. I. E. r̥̄ appears in Av. as **ar**, Skt. **īr** or **ūr**, Grk. ρω (ορ), Lat. **rā** (**ar**), but no certain example of Anc. Pers. **ar** < I. E. r̥̄ is quotable.

114. I. E. l̥̄ became in Anc. Pers. **ar**, as also in Av., Skt. **īr** or **ūr**, Grk. λω (ολ), Lat. **lā** (**al**); *e. g.*, I. E. ***dl̥̄gho**, *long*, Anc. Pers. **dargam**, Av. **darəγa**, Skt. **dīrghas**.

No examples appear in Anc. Pers. of I. E. **āi**, **ōi**, **au**, **ōu**, **əi**, **əu**.

3. INDO-EUROPEAN ACCENT.

115. By accent is meant the gradation of sound combinations according to either the pitch or the stress with which they are uttered. Pitch accent, *i. e.*, musical or chromatic accent, depends on the musical tone of the syllable vowel; stress accent, called also expiratory or emphatic accent, depends on the force or energy with which the syllable is spoken. Where pitch accent is predominant, we may expect the vowel sounds to be preserved, each with its proper musical value; where stress accent prevails, the tendency is for syllables of weaker stress to be slurred and their vowels accordingly weakened or even lost. As in pitch accent every syllable has its musical tone, so in stress accent, strictly, no part of the syllable group is wholly without stress, but the syllables merely vary in the degree of stress placed upon them. Thus, in addition to the principal accent, we may often distinguish a secondary accent; while, more for convenience than for accuracy, the remaining syllables are called unaccented. Regularly, the principal and secondary accents do not fall on successive syllables.

That both systems of accentuation operated in Indo-European is evident. And from the phenomena discussed below under Vowel Gradation (119ff), it would seem that in the earlier period of the parent speech stress accent was predominant and in the later period pitch accent. In fact, both systems in some degree find their way into the derived languages, now one, now the other prevailing. In Sanskrit and Ancient Greek, for example, pitch accent prevailed, and the accent signs of these languages indicate the rise and fall of musical tone. But in the

oldest stage of the Italic dialects, and in the language of the Keltic and Germanic groups, stress accent is predominant.

116. Syllable accent was of two kinds. A syllable might be uttered with a single accent point from which the sound declined or was broken off by a consonant; or there might be a fluctuation of sound within the syllable, a rise and fall with more than one accent point. In the former case the syllable bore the acute accent; in the latter, the circumflex.

117. Word accent in the Indo-European was free, *i. e.*, unrestricted by the number or the quantity of the syllables of the word. So it appears in Sanskrit, in primitive Germanic, and even in Greek where certain forms have escaped the influence of the later three-syllable law.

118. Sentence accent also existed in the parent language, such as the distinctive intonation of declarative and interrogative sentences or the emphasizing of certain members of the sentence to the neglect of others. Any word falling into an unemphatic position might lose its accent, and a number of words whose very meaning forced them to such a position became commonly proclitics or enclitics. Thus pronominal forms were accented or not according to their place in the sentence; the vocative at the beginning of the sentence was orthotone, elsewhere enclitic; finite verb forms were accented at the beginning of the sentence, but elsewhere were sometimes orthotone, sometimes enclitic; and nominal and adverbial elements of compounds illustrate the same principle.

4. VOWEL GRADATION.

119. Vowel Gradation, or Ablaut, is the variation of vowel sounds in word forms etymologically or morphologically related—a variation resulting from laws operative in the Indo-European period.

Under the influence of Pitch Accent (115) there came about changes as e:o or ē:ō, the two vowels of different musical tones, and preserved most faithfully in the Greek, *e. g.*, φέρω, φορός. Such a change, involving the quality of the vowel, is called qualitative.

Under the influence of Stress Accent (115), as has been said, the vowels not receiving the principal stress were modified or even dropped; *e. g.*, Grk. φώρ, φορός, δί-φρ-ος; Anc. Pers. aitiy, (I. E. *éi-ti), -idiy (I. E. *i-dhí). This kind of change, involving the quantity of the vowel, is called quantitative.

120. Vowels which received the principal accent, and therefore kept their proper value, belong to what we may call the High Grade in the system of Vowel Gradation. Those receiving the secondary accent and those remaining unaccented belong to the Low Grade. The former of these were modified, the latter were weakened and in some instances eventually lost. Thus there appear Low Grades 1 and 2, the second being also called the Nil Grade. For short vowels with secondary accent the modification consisted in a reduction of quality commonly indicated by $_{e}$, $_{o}$, $_{a}$; later, however, in the parent speech these vowels seem to have returned to their original quality and then to have followed the same treatment as the High Grade e, o, a. But for long vowels with sec-

ondary accent there was a reduction of both quality and quantity, and ē, ō, ā became ə.

121. The Indo-European lengthening of vowels gives, further, what may be called the Extended Grade. This lengthening occurred by way of compensation for the loss of a following syllable; it appears also in the change of e to ē in the singular of the s-aorist (488).

122. Qualitative differences are to be observed in both the High Grade and the Extended Grade, and we have accordingly High Grade 1 and 2 and Extended Grade 1 and 2.

123. For the six series, called the e-, o-, a-, ē-, ō-, ā-series, these changes may be presented in tabular form as follows:

	High Grade.		Low Grade.		Extended Grade.	
	1.	2.	1.	2.	1.	2.
e-series	e	o	e	–	ē	ō
o-series	o	(o)	o	–	ō	(ō)
a-series	a	o	a	–	ā	ō
ē-series	ē	ō	ə	–		
ō-series	ō	(ō)	ə	–		
ā-series	ā	ō	ə	–		

The first three are sometimes called light series, the last three heavy (cf. 127). The e-series is of special importance on account of the frequency of its occurrence. It appears in the first syllable of dissyllabic heavy bases, in the last and usually the first syllable of dissyllabic light bases; also in many monosyllabic bases (127ff).

124. The following roots and forms will illustrate these grades:

	High Grade. 1.	High Grade. 2.	Low Grade. 1.	Low Grade. 2.	Extended Grade. 1.	Extended Grade. 2.
e-series: I. E.	*pet	*pot	—	*pt	—	—
	πέτομαι	ποτάομαι	—	ἐπτόμην	—	—
I. E.	*pedm̥	—	*p$_{e}$dés	—	*pēts	*pōts
	πέδα	πόδα	Lat. pedis	ἐπί-βδαι	Lat. pēs	Dor. πώς
I. E.	*bheidh	*bhoidh	—	*bhidh	—	—
	πείθω	πέποιθα	—	πιστός	—	—
I. E.	*(e)leudh	*(e)loudh	—	*(e)ludh	—	—
	ἐλεύ(θ)σομαι	εἰλήλουθα	—	ἤλυθον	—	—
I. E.	*derk̂	*dork̂	—	*dr̥k̂	—	—
	δέρκομαι	δέδορκα	—	ἔδρακον	—	—
I. E.	*bhendh	*bhondh	—	*bhn̥dh	—	—
Goth.	bindan	band	—	bundum	—	—
o-series: I. E.	*oq	—	*$_{o}$q	—	*ōqs	—
	ὄψομαι	—	ὀπτέον	—	ὤψ	—
a-series: I. E.	*aĝ	*oĝ	*$_{a}$ĝ	*ĝ	*āĝ	*ōĝ
	ἄγω	ὄγμος	-ακτός	Skt. pari-j-man	Lat. ambāges	ἀγωγή
ē-series: I. E.	*dhē	*dhō	*dhə	*dh	—	—
	τίθημι	θωμός	Skt. hi-ta	Skt. da-dh-mas	—	—

	High Grade. 1.	High Grade. 2.	Low Grade. 1.	Low Grade. 2.	Extended Grade. 1.	Extended Grade. 2.
ō-series: I. E.	*dō	—	*də	*d	—	—
	δώσω	—	Lat. datus	Skt. da-d-mas	—	—
ā-series: I. E.	*bhā	*bhō	*bhə	—	—	—
	φāμί	φωνή	φαμέν	—	—	—

125. From what has been said above (87-114) as to the treatment of Indo-European vowels in Ancient Persian, it will be seen that for the latter language the table given in 123 is reduced to the following:

	High Grade.	Low Grade.	Extended Grade.
a-series: (e, o, a)	a	—	ā
ā-series: (< ē, ō, ā)	ā	i, —	—

126. These changes are illustrated in the following forms:

	High Grade.	Low Grade.	Extended Grade.
a-series:	hadiš (I. E. *sed, Grk. ἕδος)	višta- (I. E. *vi-zd-to)	niyašādayam (E.G. 2; Skt. sādayati)
	abara (I. E. *ebheret)	ubarta (Skt. bhr̥ta)	asabāri

High Grade.	Low Grade.	Extended Grade.
—	piθ^{r}a	pitā (I. E. *petē(r), 1)
		brātā (Grk. φράτωρ, 2)
ba^{n}daka	basta (I. E. *bhn̥dhto)	—
-maniš (I. E. *men-, Grk. μένος)	—	adānā (I. E. *gn̥-na, 1)
		asmānam (I. E. -ōn-, 2)
—	ājamiyā (I. E. *gm̥myēt)	—
	parāgmatā; gāθu (112, 131)	
cartanaiy	ca-xr-iyā	—
	karta	
	akumā	
aitiy (I. E. *eiti)	-idiy (I. E. i-dhi)	—
abava (au<eu I. E. *ebhewet)	bī-yā (<I. E. *bhw-ī-yēt)	
	dahyūnām	dahyāuš
drauga	adurujiya	—
ā-series: adā (I. E. *dhē)		—
	had-iš (I. E. -əs < -ēs, -ōs)	
dadātuv (I. E. *dō)	—	—
stāna (Ar. *sthā)	—	—

5. BASES.

127. It will be observed that the changes noted above belong both to root syllables and to suffixes, as aitiy: -idiy, and pitā (I. E. -tēr) : brātā (I. E. -tōr). These are sometimes called root bases and suffix bases. Root bases usually have no more than two syllables. A monosyllabic root base is called heavy if its vowel is long, light if its vowel is short; *e. g.*, the root dā (I. E. *dhē) is heavy; astiy (I. E. *es-) shows a light base. The first syllable of a dissyllabic base always has a short vowel; the base is heavy or light, then, according as the vowel of its second syllable is long or short; *e. g.*, aparsam, I. E. root *perek̂, has a light base, while the I. E. base gemē, appearing in Low Grade in Anc. Pers. gāθu, is heavy (cf. 112).

128. The dissyllabic base did not admit of a High Grade vowel in both syllables; one syllable or both must be of Low Grade; *e. g.*, from the I. E. root *gemē, *go*, the Skt. gami-ṣyati from the base *gemə shows the High Grade of the first vowel and Low Grade of the second; while the monosyllabic *gm̥, appearing in Anc. Pers. ā-jam-iyā, results from Low Grade of both vowels.

In the Ancient Persian bara-, Greek φέρε-, the thematic vowel was borrowed from forms with the Low Grade in the first syllable. Indo-European *liqé would be regularly Low Grade 2 + High Grade 1. It was on this analogy that the Indo-European léiqe was formed. Otherwise the Indo-European conjugation would show *bhér-ti (cf. Skt. bharti, Lat. fert), *bhr̥-més. But the transfer to thematic formations was made in the Indo-European period.

129. If the accent fell on the first syllable of a

heavy dissyllabic base, the long vowel of the second syllable was weakened to ə; but if the accent fell on the second syllable, this long vowel was preserved, and the short vowel of the first syllable was lost; *e. g.*, I. E. *bhéwā, *be*, became *bhewə, from which comes the Sanskrit bhavi-tum; but *bhewā́ became *bhwā, appearing in the Latin -bam <*-bhwām.

130. There often occur different forms of the base for the same root; *e. g.*, I. E. *bhere- and *bherē, seen in Grk. φέρτε, Lat. fert, alongside Grk. ἔφρησα and Skt. bhari-tram—which serve to show that even in the Indo-European period the final element of the base had come to be regarded as a suffix.

131. The following bases illustrate the differences of vowel grade:

*qθē(i), *rule*.

H. G. 1: I. E. *qθē(y), Anc. Pers. xšāyaθiya, Grk. κτῆμα.

L. G. 1: I. E. *qθə(y), Anc. Pers. patiyaxšayaiy (Dar. NRa. 19, Stolze's Phot., Weissb. Phot.), upariyaxšayaiy (Bh. 4. 65, Tolman *Lex.* 85), Av. xšayeiti, Grk. κτάομαι.

L. G. 2: I. E. *qθi, Skt. adhikṣit.

*tewe, *family*.

H. G. + L. G. 2: I. E. *tew, Anc. Pers. taumā.

*gemē, *go*.

L. G. 2: I. E. *gm̥̄ reduced from *g$_e$mə, Anc. Pers. gāθu (cf. 112).

L. G. 2 + L. G. 2: I. E. *gm̥, Anc. Pers. -jam-iyā (I. E. gm̥m-yē-t).

H. G. + L. G. 2: I. E. *gem, Av. jantu, Skt. gantu.

H. G. + L. G. 1: I. E. *gemə, Skt. gami-ṣyati.

*geyā, *conquer.*
L. G.: I. E. *gī, Skt. jīta, Anc. Pers. dīta.
H. G. + L. G. 1: I. E. *geyə, Skt. jeman (<*jayi-man).
L. G. 1 + H. G.: I. E. *g$_{e}$yā, Grk. βίᾱ.
L. G. 2 + H. G.: I. E. *gyā, Skt. jyā-syati, Grk. ζάει.

*geyē(w), *live.*
L. G. 1 + L. G. 2: I. E. *gī(w), Skt. jīvati, Anc. Pers. jīvā, Lat. vīvus.

*ghenē, *ghene, *slay.*
H. G. + L. G. 2: I. E. *ghen, Anc. Pers. ajanam, Av. ǰana-, Skt. hanti, Grk. φόνος.
L. G. 2 + L. G. 2: I. E. *ghn̥, Anc. Pers. -jata, Av. ǰata-, Skt. hata, Grk. φατός.
H. G. + L. G. 1: I. E. *ghenə, Skt. haniṣyati.

*ġenē, *know.*
L. G. 2 + H. G.: I. E. *ĝnē, Anc. Pers. xšnāsātiy, Grk. γιγνώσκω.
L. G.: I. E. *ĝn̥̄, reduced from *g$_{e}$nə, Anc. Pers. adānā, Av. zānənti, Skt. jānāti (<*janāti).
L. G. 2 + L. G. 1: I. E. *ĝnə, Mid. Pers. šnūtam, New Pers. šunūdān, *hear.*

*perek̂, *ask.*
L. G. 1 + L. G. 2: I. E. *pr̥k̂ (p$_{e}$rk̂), Anc. Pers. aparsam, Skt. pr̥cchati, O. H. G. forsca.
H. G. 1 + L. G. 2: I. E. *perk̂, Umbrian persclo, O. H. G. fergōn.

*bhewā, *bhewē, *be.*
L. G. 2 + L. G. 2: I. E. *bhw-yēt, Anc. Pers. b-īyā, Grk. φύσις.

L. G. 2: I. E. *bhū, reduced from *bh$_e$wə, Skt. bhūta, Grk. ἔφυ.
L. G. 2 + H. G.: I. E. *bhwām, Lat. -bam.
H. G. + L. G. 1: I. E. *bhevə, Skt. bhavitum.

*menē, *think*.

H. G. + L. G. 2: I. E. *men, Anc. Pers. maniyāhay, Skt. manyate.
L. G.: I. E. *mn̥, reduced from *m$_e$nə (see Reichelt KZ 39. 26), Skt. abhi-mā-tis.

CHAPTER VI.

THE CONSONANTS.

1. THE INDO-EUROPEAN CONSONANT SYSTEM.

132. The Indo-European Consonants may be divided into Explosives, Nasals, Liquids, Semivowels, and Spirants.

133. The Explosives are formed by a complete obstruction of the breath passages and are called Velar, Palatal, Dental, or Labial, according as the obstruction is produced by the soft palate, the hard palate, the teeth, or the lips.

134. If the vocal chords cease to vibrate at the time of this breath obstruction, the explosive is voiceless or tenuis; if the vibration of the vocal chords continues, the explosive is voiced or media. When explosives are aspirated, they become merely the equivalent of the tenues or mediæ followed by aspiration: k̂h, th, ph, for instance, are not spirant sounds, but rather like the *kh*, *th*, *ph* of the English words *packhorse*, *hothouse*, *uphold*.

135. The Velars, less accurately designated Gutturals, are so called from the fact that the breath obstruction is made by the base of the tongue with the lower or soft palate (*velum*). They are thus distinguished from the Palatals, in which the obstruction is made by the middle part of the tongue with the upper or hard palate. The velar sounds, again, may be changed in pronunciation by a rounding of the lips, in which case they are called Labio-Velars; in distinction from these the velars without such lip modification are called Pure Velars.

136. The Dental sounds are produced by bringing the end of the tongue to the upper part of the teeth. The so-called dentals of English, except when they become spirantal, are strictly not teeth sounds, but alveolars; *i. e.*, they are made by bringing the end of the tongue just above and near the roots of the teeth.

137. The Nasals are formed by keeping the nasal passages open while the breath is obstructed either by the tip of the tongue slightly back of its position for dental explosives (**n**), or by the lips (**m**). The dental nasal **n**, like **n̥** (85), became velar or palatal before the corresponding explosives. As the end of the tongue moves back from the position required for the dental nasal, the Liquid **l**, then **r**, is produced. The fact that the nasal passages are open while the breath obstruction is produced only by the tongue or the lips, makes it possible for the nasals and liquids to occur as either consonants or vowels.

138. Just as consonantal nasals and liquids may, by a partial opening of the breath passages, become vocalic, so vowels, by a partial closing of the passages, may become consonantal in value; they are then called

semivowels. The semivowel occurs always in conjunction with a vowel, thus forming a diphthong of which the full vowel always bears the accent. The diphthong is said to be rising or falling according as the full vowel is its second or first element.

139. The Indo-European Consonant sounds are presented in the following table:

		Pure Velar.	Labio-Velar.	Palatal.	Dental.	Labial.
Explosives	Tenues	q	q^{w}	k̂	t	p
	Tenues Aspiratæ	qh	$q^{w}h$	k̂h	th	ph
	Mediæ	g	g^{w}	ĝ	d	b
	Mediæ Aspiratæ	gh	$g^{w}h$	ĝh	dh	bh
Nasals		n(137)		n(137)	n	m
Liquids					l, r	
Semivowels				y		w
Spirants	Surd				s	
	Sonant				z	

NOTE.—We omit from the table certain Indo-European sounds occurring only in unusual combinations, as *θ* with **q** or **k̂**, and *δ* with **g** or **ĝ**; **sh** and **zh** resulting from combination of aspirated explosives with **s** by transfer of aspiration; *e. g.*, **tsh** < **ths**, **psh** < **phs**, **dzh** < **dhs**, **bzh** < **bhs**; and *θ***h** with **q** or **k̂**, *δ***h** with **g** or **ĝ**, by transfer of aspiration from the older **qh***θ*, **k̂h***θ*, **gh***δ*, **ĝh***δ*. While these Indo-European spirants *θ*, *δ*, *θ***h**, *δ***h** became **t**-sounds in Greek, they are represented in Indo-Iranian, as well as in the Latin, Germanic, and Balto-Slavonic groups by **s**-sounds. This sound in Aryan, as in the case of original **s**, became **š** after **q** (190); *e. g.*, I. E. ***q***θ***ē(i)**, *rule*, Grk. κτῆμα, Anc. Pers. **xšāya***θ***iya**, Av. **xšayeiti**, Skt. **kṣayati**.

140. **Satəm and Centum Groups.** The Aryan languages show no distinction between Pure Velars and Labio-Velars. This subject raises the question of

Indo-European dialects or "plural tangencies." Since the Aryan, the Armenian, and the Balto-Slavonic show no difference of the velars, it can reasonably be supposed that such distinction would not appear in that portion of Indo-European territory whence these languages arose. The Labio-Velar, on the other hand, existed in that territory from which proceeded the Greek, Italic, Keltic, and Teutonic, since this phenomenon is reflected in these tongues. Furthermore, the Aryan, Armenian, and Balto-Slavonic show the tendency of palatals to become sibilants, while the Greek, Italic, Keltic, and Teutonic show the velar. Hence two great divisions of the Indo-European languages are commonly recognized; the **satəm** group where **k̂** became **s**, as in I. E. **k̂m̥tom** which appears as Av. **satəm**, Skt. **çatam**; and the **centum** group where **k̂** became **q** (**c**, **k**) as in the Lat. **centum**, Grk. ἑ-κατόν.

2. a. Treatment of Indo-European Velars in Aryan.

q, **q**^{w}.

141. I. E. **q**, which became Grk. **k** (initially and in general medially), Lat. and O. Ir. **c**, appears as **k** in Aryan, as in other languages of the **satəm** group; *e. g.*, I. E. ***qer**, *make*, Skt. **kr̥**, Anc. Pers. **kar**, Av. **kar** (New Pers. **kardan**), Grk. κραίνω, Lat. **creo**.

I. E. **q**^{w}, as has been said (140), in Aryan fell together with the pure velar **q**. In Lat. it became **qu** before other vowels than **u**, **c** before **u** and consonants. In Grk. it appears as τ before ι and ε, κ before and after υ, with *y* it forms σσ (ττ), and else-

where occurs as π. Thus, I. E. *q^{w}o, *q^{w}e, *who*, Skt. ka, Anc. Pers. ka, -kaiy (loc. sg. in adakaiy 351, 574), Av. ka, (New Pers. ki, Oss. kă), Grk. πότερος, Hom. τέο, Lat. quod.

qh, q^{w}h.

142. These two sounds, which occurred but rarely in I. E., appear in Aryan as kh. In Grk. qh became χ, in Lat. g, h, while q^{w}h had the same treatment as g^{w}h (144) in these languages; *e. g.*, I. E. *konqho, *conch-shell*, Skt. çañkha, Grk. κόγχος, Lat. congius; I. E. sq^{w}hal, *fall*, Skt. skhalati, Grk. σφάλλομαι.

g, g^{w}.

143. I. E. g, which appears as g in Lat., O. Ir., Lith., Old Slav., in Grk. γ (initially and generally medially), Germanic k, remained g in Aryan; *e. g.*, I. E. *jugo, *yoke*, Skt. yuga, Grk. ζυγόν, Lat. iugum, Goth. juk.

I. E. g^{w}, which fell together with I. E. g in Aryan, became in Lat. v, but when the labial was lost, g, and gu after n, O. Ir. b, Germanic kw, k. In Grk. it became δ before ε, γ before and after υ, with *y* it formed ζ, and elsewhere appears as β; *e. g.*, I. E. g^{w}ōus, Skt. gāu, Anc. Pers. gau-, Av. gāu, Grk. βοῦς, Umbr. bue (whence is borrowed Lat. bos, which otherwise should be *vos), O. H. G. chuo, O. Ir. bō.

gh, g^{w}h.

144. I. E. gh, which appears as χ in Grk., Lat. g before and after consonants, elsewhere h, O. Ir. g, in Lith. and O. Slav. with the same treatment as g, occurs as gh in Aryan; *e. g.*, Skt. dīrgha, *long*,

Anc. Pers. dargam, GAv. darəga, YAv. darəγa, Grk. δολιχός.

I. E. g^wh, which fell together with I. E. gh in Aryan, appeared in Lat. as f initially, v medially (but gu after n), in Lith. and O. Slav. with the same treatment as g. In Grk. it became θ before ε, χ before and after υ, with *y* it formed σσ (ττ), and elsewhere occurs as φ; *e. g.*, I. E. $g^wh^e/_o$rmo, *warm*, Skt. gharma, Anc. Pers. garma-, Av. garəma, Grk. θερμός, Lat. formus.

NOTE.—Since in the Aryan group the original Labio-Velar sounds were no longer distinguished from the Pure Velars (140), from this point in the present work the two classes will regularly be designated by the neutral signs q, qh, g, gh.

b. The Aryan Palatal Law.

145. It must be observed that for the Aryan languages, in addition to the changes noted above, there occurred a palatalization of the velars before palatal vowels, *i. e.*, before ī̆ (y) and the ā̆ which represents I. E. ē̆ (89, 90). In such positions (1) q became first k̑ and through this c (Iran. c), (2) g through ĝ became j (Iran. j), and (3) gh through ĝh became jh (Iran. j, Skt. h). The following examples will illustrate this law:

(1) I. E. *qyeu, *move*, Anc. Pers. ašiyavam (<*acyavam), Skt. cyavate, Grk. ἔσσυτο; I. E. *qid, *any*, Anc. Pers. -ciy (Mid. Pers. ci, New Pers. cih), Av. -ciṯ, Skt. -cid, Grk. τι; I. E. *-qe, *and*, Anc. Pers. -cā, Av. -cā, Skt. -ca, Grk. τε, Lat. -que.

(2) I. E. *gei, *live*, Anc. Pers. jīvā, Av. jivaiti, Skt. jīvati, Lith. gyvas, O. Ir. beo, Grk. βίος, Lat. vīvus.

(3) I. E. *ghen, *smite*, Anc. Pers. ajanam, Av. jainti, Skt. hanti (but pl. ghnanti), Grk. θείνω.

c. Aryan Velars in Ancient Persian.

k.

146. In Anc. Pers., as in Av., Aryan k remained k before sonants but became x before consonants; *e. g.*, Anc. Pers. ka, *who* (New Pers. ki), Av. ka, Skt. ka; Anc. Pers. kar, *make*, Av. kar, Skt. kr̥; Anc. Pers. xšap, *night*, YAv. xšap, Skt. kṣap; Anc. Pers. xšaθ^{r}a, *kingdom*, Av. xšaθra, Skt. kṣatra.

kh.

147. Aryan kh appears in Anc. Pers. and Av. as x, but when preceded by a sibilant and followed by a sonant it became k; *e. g.*, Anc. Pers. haxā-, *friend*, YAv. haxi, Skt. sakhi; Anc. Pers. kan, *dig* (New Pers. kandan), YAv. kan, Skt. khan. (Perhaps Aryan *skhan.)

g.

148. Aryan g remains g in Anc. Pers. (GAv. g, which became YAv. γ unless initial or preceded by a nasal or a sibilant); *e. g.*, Anc. Pers. gāθu, *place*, (New Pers. gāh), Av. gātu, Skt. gātu; Anc. Pers. baga, *god*, YAv. baγa, Skt. bhaga.

gh.

149. Aryan gh became Anc. Pers. g (GAv. g, which became YAv. γ unless initial or preceded by a nasal or a sibilant); *e. g.*, Anc. Pers. dargam, *long*, GAv. darəga, YAv. darəγa, Skt. dīrgha; Anc. Pers. gauša,

ear, YAv. gaoša, Skt. ghoṣa; Anc. Pers. garma-, *heat*, Av. garəma, Skt. gharma.

d. Aryan Palatalized Velars in Ancient Persian.

c.

150. Aryan c remained c in Anc. Pers. except before y, where it was changed to š as in Av.; *e. g.*, I. E., *-qe, *and*, Anc. Pers. -cā, Av. -cā, Skt. -ca; I. E. *qyeu, *move*, Anc. Pers. ašiyavam, GAv. šyu, Skt. cyu.

j.

151. Aryan j remained j in Anc. Pers. as in GAv. (but on its pronunciation see 68); in YAv. it became ž (instead of ż) except when initial or after sibilants and nasals; *e. g.*, I. E. *gei, *live*, Anc. Pers. jīvā, Av. jivaiti, Skt. jīvati; Skt. bhajati, *he shares*, YAv. bažat̰.

jh.

152. Aryan jh became j in Anc. Pers., as in GAv.; in YAv. it became ž (instead of ż) except when initial or after sibilants and nasals; *e. g.*, I. E. *ghen, *smite*, Anc. Pers. ajanam, Av. jainti, Skt. hanti; Anc. Pers. duruj, *lie*, GAv. druj (Mid. Pers. družītan), Skt. druh; Skt. dahati, *he burns*, YAv. dažaiti.

3. a. Indo-European Palatals in Aryan.

k̂.

153. The tendency of the Indo-European palatals to become sibilant in Aryan has been mentioned above (140). Thus I. E. k̂ which appeared in Grk. as κ, Lat. and O. Ir. c, became in Aryan ś (the Skt. ç);

e. g., I. E. *weik̂, *dwell*, Skt. viç, Av. vīs, Grk. ϝοῖκος, Lat. vīcus; I. E. *k̂m̥tom, *hundred*, Skt. çatam, Av. satəm, Grk. ἑ-κατόν, Lat. centum.

k̂h:

154. This was a very rare sound in Indo-European. It appears in Greek as χ, and is not distinguished in the Germanic, Keltic, and Balto-Slavonic groups from original k̂. Since in Sanskrit it is found only in original sk̂h, which became ch, we cannot be sure what its Aryan form would have been outside this combination; *e. g.*, I. E. *sk̂hid, *split*, Skt. chid, Av. sid, Grk. σχίζω, Lat. scindo.

ĝ.

155. I. E. ĝ, which remained in Lat. and O. Ir., also in Grk. (initially and in general medially), appearing in Germanic as k, Lith. ż, and O. Slav. z, became in Aryan ž (Skt. j); *e. g.*, I. E. *ĝen, *beget*, Aryan *žana, *man* (<*žan, *give birth*), Anc. Pers. paruv-zana, Av. zan, Skt. jan, Grk. γένος, Lat. genus; I. E. *ĝeus, *taste*, Skt. joṣtar, Av. zaoša, Grk. γεύω; I. E. *ĝno, *know*, Skt. jña, Grk. γιγνώσκω, Lat. gnosco.

ĝh.

156. I. E. ĝh, which appears as g in O. Ir., in Lat. g before and after consonants, f initially before u, and elsewhere h, Lith. ż, O. Slav. z, Grk. χ, became žh in Aryan, which in Skt. became h (through jh), and in Iranian fell together with ž, becoming z (159); *e. g.*, I. E. *bhāĝhu, *arm*, Skt. bāhu, Av. bāzu, Grk. πῆχυς; I. E. *dheiĝh, *heap up*, Skt. dehī, *rampart*, YAv. diz (New Pers. diz), Grk. τεῖχος, Lat. fingo, Goth. deigan.

b. Treatment in Ancient Persian of Aryan Spirants Representing Indo-European Palatals.

ś < k̂.

157. The Primitive Aryan ś, from I. E. k̂, became in Anc. Pers. θ or s before vowels and most consonants. s instead of θ seems to have been borrowed from other dialects, as in the case of z for d, 158 (a). In Av. the sound becomes s before vowels and most consonants, but occasionally in YAv. also it is written as θ before vowels. Examples are: Anc. Pers. viθam (v[i]θam), *palace*, Av. vīsəm, Skt. viçam; Anc. Pers. θātiy, *he says*, Av. sah̭, Skt. çaṅs; Anc. Pers. aθa[n]gaina, *of stone*, YAv. asənga (New Pers. sang), Skt. açani; Anc. Pers. θata-, *hundred*, YAv. sata (New Pers., Kurd., sad, Oss. sada), Skt. çata; Anc. Pers. asman, *stone*, YAv. asman (New Pers. āsmān), Skt. açman; Anc. Pers. vasiy, *at will*, Av. vasō, Skt. vaças.

(a) Aryan ś became Anc. Pers. š before n; *e. g.*, vašna, *will;* cf. vasiy above.

(b) Aryan ś became Anc. Pers. š before t, as in Av.; *e. g.*, ufrašti, *severe punishment* (Tolman *Lex.* 76), ufrašta (variant ufrasta (192, a), Tolman *Lex.* 76), *well punished.*

(c) Aryan śr appears as θ[r] in niyaθ[r]ārayam, root θ[r]i, *lean*, YAv. sri, Skt. çri.

(d) Both I. E. sk̂(h) and k̂sk̂(h) became in Anc. Pers. s; *e. g.*, Anc. Pers. arasam, *I came*, Skt. ṛchati, I. E. suffix *-sk̂h-e-ti; I. E. *pṛk̂-sk̂(h)ō, *I ask*, Skt. pṛchāmi, Anc. Pers. aparsam, Av. pərəsāmi.

ź < ĝ.

158. Aryan ź, representing I. E. ĝ, became Anc.

Pers. d or z. It is likely that this d was pronounced as a spirant, *i. e.*, δ. In Av. ž became z, and in Skt. j. Examples are: Anc. Pers. paruvzana, *populous* (< *žan), Av. zan, Skt. jan; Anc. Pers. dauštar, *friend*, Av. zaoša, Skt. joṣṭar; Anc. Pers. adānā, *he knew*, YAv. zānənti, Skt. jānati; Anc. Pers. drayah, *sea*, Av. zrayah, Skt. jrayas; Anc. Pers. ayadaiy, *I worshiped* (Tolman *Lex.* 120), Av. yaz, Skt. yaj.

(a) Anc. Pers. z from Aryan ž seems to belong particularly to words occurring in formulaic expressions, probably borrowed from other dialects, but it is to be observed that it survives in Modern Persian; so vazarka in the formula xšāyaθiya vazarka, Mod. Pers. buzurg.

(b) The pronunciation of d as a spirant is indicated in the writing of mudrāyā, *Egypt*, for the Bab. mi-ṣir, Elam. muzzariya; cf. Grk. Μύσρα (Steph. Byz.).

(c) Aryan žn, Ir. šn, at the beginning of a word is represented in Anc. Pers. by xšn-, as in the root xšnā, *know*; cf. Av. xšnā (-snā-), Skt. jñā, Grk. (Epir.) γνώσκω, Lat. (g)nosco.

žh < ĝh.

159. Aryan žh representing I. E. ĝh, as mentioned above (156), fell together with Aryan ž and became Iranian z, appearing in Anc. Pers. d or z, Av. z (158); *e. g.*, Anc. Pers. adam, *I*, Av. azəm, Skt. aham (I. E. *eĝ(h)o(m); Anc. Pers. didā, *rampart*, Av. diz, Skt. dehī; Anc. Pers. -gaudaya, *hide*, YAv. guz, Skt. guh; Anc. Pers. u-zm-ay-ā (< *zam, *earth*), Grk. χαῖμα.

4. a. Indo-European Dentals in Aryan.

t.

160. I. E. **t** remained **t** in Aryan, as in most of the other derived languages, as Lat., Lith., O. Slav., O. Ir. (**t** or **th**), Grk. (generally); *e. g.*, I. E. ***eti**, *beyond*, Skt. **ati**, Anc. Pers. **atiy**, YAv. **aiti**, Grk. ἔτι, Lat. **et**, **etiam**; I. E. ***esti**, *he is*, Skt. **asti**, Anc. Pers. **astiy**, Av. **asti**, Grk. ἔστι, Lat. **est**; I. E. ***pəter**, *father*, Skt. **pitar**, Anc. Pers. **pitar**, Grk. πατήρ, Lat. **pater**; I. E. pronom. stem ***to-**, *this*, Skt. **tam**, Anc. Pers. **ai-ta**, Av. **təm**, Grk. τό, Lat. **tam**.

th.

161. The rare I. E. sound **th** was preserved unchanged in Aryan, as also in Grk. (θ), while in the primitive period of other languages it fell together with other dentals, with **dh** in Lat. and with **t** in Germanic, Keltic, and Balto-Slav.; *e. g.*, I. E. ***woittha**, *you know*, Skt. **vettha**, Grk. (ϝ)οἶσθα.

d.

162. I. E. **d** remained **d** in Aryan, as in practically all the other derived languages (Lat., O. Ir., Lith., O. Slav., Grk. generally, but Germanic **t**); *e. g.*, I. E. ***dō**, *give*, Skt. **dā**, Anc. Pers. **dā**, Av. **dā**, Grk. δίδωμι, Lat. **do**; I. E. ***sed**, *sit*, Skt. **sad**, Anc. Pers. **had**, YAv. **had**, Grk. ἕδος, Lat. **sedeo**, O. Ir. **suide**, Goth. **sitan**.

dh.

163. I. E. **dh** remained as **dh** in Aryan, while in the Keltic and Balto-Slav. groups it became **d**, in Grk. θ, and in Lat. initially **f**, medially **b** before **l** and **r**,

and after r and u, elsewhere d; *e. g.*, I. E. *dhē, *put*, Skt. dhā, Grk. θήσω, Lat. fēci, con-do; I. E. *rudhros, *red*, Skt. rudhira, Grk. ἐρυθρός, Lat. ruber; I. E. *k̂ludhi, *hear thou*, Skt. çrudhi, Grk. κλῦθι.

b. Aryan Dentals in Ancient Persian.

t.

164. Aryan t remained in Anc. Pers., as also in Av., regularly before vowels and after sibilants, but before consonants it became θ; *e. g.*, Anc. Pers. atiy, *beyond*, Av. aiti, Skt. ati; Anc. Pers. astiy, *he is*, Av. asti, Skt. asti; Anc. Pers. pitar, *father*, Av. pitar, Skt. pitar; Anc. Pers. ai-ta, *this*, Av. təm, Skt. tam; Av. uštra, Anc. Pers. uša- (cf. Tolman *Lex.* 78), Skt. uṣṭra; I. E. *twē, *thee*, Anc. Pers. θuvām (for *θvām), GAv. θwąm, Skt. tvām.

(a) Aryan ty became in Anc. Pers. šy (written šiy) in hašiya (for *hašya), Av. haiθya, Skt. satya.

(b) The Anc. Pers. pronoun tya, which regularly would have been in Iranian *θya (> *šiya), probably takes its form after the analogy of the demonstrative ta (cf. Tolman *Lex.* 94). In the Anc. Pers. martiya (Av. mašya, Skt. martiya) iy must have been pronounced as a separate syllable, as in the Veda.

(c) Aryan tc became šc in Anc. Pers.; *e. g.*, aniyašciy, *any other* (for *aniyat-ciy), Skt. anyaccid.

165. Aryan tr was written in Anc. Pers. as θ^r; *e. g.*, Anc. Pers. xšaθ^ra, *kingdom*, Av. xšaθra, Skt. kṣatra; Anc. Pers. ciθ^ra, *lineage*, Av. ciθra, Skt. citra; Anc. Pers. θ^ritīya, *third*, YAv. θritya, Skt. tṛtīya (for *tritīya); Anc. Pers. puθ^ra, *son*, Av. puθra, Skt. putra; Anc. Pers. piθ^ra, *of a father*, Grk. πατρός.

NOTE.—m$^{i}\theta$ra, Skt. mitra, is thus written in the inscription Artaxerxes Persepolis a (aa, ac, ad) 25, b 23, and in Artaxerxes Susa a 4 and 5. Cf. 69, and 514, (d).

th.

166. In Anc. Pers., as in Av., Aryan th became θ, but when preceded by a sibilant and followed by a sonant it was changed to t; *e. g.*, Anc. Pers. yaθā, *when*, Av. yaθā, Skt. yathā; Anc. Pers. stā, *stand*, Av. stā, Skt. sthā.

d.

167. Aryan d remained d in Anc. Pers. (GAv. d, which became YAv. δ unless initial or preceded by a nasal or a sibilant); *e. g.*, Anc. Pers. dā, *give*, Av. dā, Skt. dā; Anc. Pers. had, *sit*, YAv. had, Skt. sad; Anc. Pers. -spāda (in taxmaspāda), GAv. spādā, YAv. spāδa.

dh.

168. Aryan dh, like other mediæ aspiratæ in Iranian, fell together with its corresponding media, and appears in Anc. Pers. as d; *e. g.*, Anc. Pers. dā, *put*, Av. dā, Skt. dhā; Anc. Pers. ba^{n}d, *bind*, YAv. band, Skt. bandh; Anc. Pers. darš, *dare*, Skt. dhr̥ṣ; Anc. Pers. dī, *see*, Av. dī, Skt. dhī; Anc. Pers. hi^{n}du, *India*, YAv. hindu, Skt. sindhu.

5. a. Indo-European Labials in Aryan.

p.

169. I. E. p, which was lost in O. Ir. initially and before vowels and became Germanic f, ƀ, remained p in Aryan, as well as in Lith., O. Slav., Lat., and Grk. (initially and in general medially); *e. g.*, I. E. pəter, *father*, Skt. pitar, Anc. Pers. pitar, Av. pitar, Grk.

πατήρ, Lat. pater, O. Ir. athir, Goth. fadar; I. E. pr̥k-sk̂(h)ō, *ask*, Skt. pr̥chāmi, Anc. Pers. a-parsam, Av. pərəsāmi, Lat. posco (= *por(c)-scō), O. H. G. forsca; I. E. *apo, *from*, Skt. apa, Anc. Pers. apa-, YAv. apa, Grk. ἄπο.

ph.

170. The very rare I. E. sound ph was preserved unchanged in Aryan, as also in Grk. (φ), while in the primitive period of other languages it fell together with other labials, with bh in Lat., with p in Germanic, Keltic, and Balto-Slavonic; *e. g.*, Grk. σφαραγέω, *crack*, Skt. sphūrjati.

b.

171. I. E. b, the rarest of the explosives in the parent speech, remained b in Aryan, as also in O. Ir., Lith., O. Slav., Lat., Grk. (initially and in general medially), becoming p in the Germanic group; *e. g.*, I. E. *pibeti, *he drinks*, Skt. pibāti; Skt. bala, *might*, Lat. de-bilis.

bh.

172. I. E. bh, which became Germanic b, ƀ, Keltic and Balto-Slavonic b, Grk. φ, Lat. f initially and b medially, remained bh in Aryan; *e. g.*, I. E. *bherō, *bear*, Skt. bharāmi, Grk. φέρω, Lat. fero, O. Ir. berim, Goth. baira; I. E. *bhrātor, *brother*, Skt. bhrātar, Grk. φράτωρ, Lat. frater, O. Ir. brāthir; Skt. nabhas, *mist*, Grk. νέφος, Lat. nebula, O. H. G. nebul.

b. Aryan Labials in Ancient Persian.

p.

173. Aryan p remained in Anc. Pers. and Av. be-

fore sonants and after sibilants, but before consonants it was changed to **f**; *e. g.*, Anc. Pers. **apa-**, *from*, YAv. **apa**, Skt. **apa**; Anc. Pers. **pitar**, *father*, Av. **pitar**, Skt. **pitar**; Anc. Pers. ***spāda**, *army* (in **taxmas-pāda**), GAv. **spāda**, YAv. **spāδa**; Anc. Pers. **fra-**, *forth*, Av. **frā**, Skt. **pra**; Anc. Pers. **ufrašta**, *well-punished* (cf. **a-parsam**, *I examined*), Av. **fras**, Skt. **pr̥chati.**

ph.

174. Aryan **ph** appears in Iranian as **f**, but when preceded by a sibilant and followed by a sonant it became **p**; *e. g.*, YAv. **kafəm**, *foam*, Skt. **kapha**, YAv. **fraspara**t̰, *he started forth*, Skt. **aphurat**. No example is found in Anc. Pers.

(a) In the Anc. Pers. ***farnah**, *glory*, occurring only in the compound proper name **viⁿdafarnah** (*finding glory*), the **f** represents an Iranian **x^v**; cf. YAv. **x^{v}arənah.**

(b) **bh.**

175. Aryan (**b**) **bh** became Anc. Pers. **b** (GAv. **b**, which became YAv. **w** unless initial or preceded by a nasal or a sibilant); *e. g.*, Anc. Pers. **abara**, *he bore*, Skt. **abharat** (I. E. ***ebheret**); Anc. Pers. **baga**, *god*, YAv. **baγa**, Skt. **bhaga**; Anc. Pers. **bāji**, *tribute*, YAv. **baj**, Skt. **bhaj**; Anc. Pers. **brātar**, *brother*, Av. **brātar**, Skt. **bhrātar**; Anc. Pers. **abiy**, *to*, GAv. **aibī**, YAv. **aiwi**, Skt. **abhi.**

6. a. Indo-European Consonantal Nasals in Aryan.

n.

176. The I. E. dental nasal remained as **n** in Aryan, as generally in the other derived languages; *e. g.*, I. E. ***nōmn̥**, *name*, Skt. **nāma**, Av. **nāma**, Anc. Pers.

nāma (New Pers. nām), Grk. ὄ-νομα, Lat. nomen, Goth. namo; I. E. *ĝenos, *race*, Skt. janas, Grk. γένος, Lat. genus, Goth. kuni; I. E. *bheronti, *they bear*, Skt. bharanti, Av. barainti, Grk. (Dor.) φέροντι, Lat. ferunt, Goth. bairand.

177. But the nasal n, as mentioned above (137), even in I. E. became velar or palatal before the corresponding explosives. So also, with the palatalization of I. E. velars in Aryan (145), a preceding velar nasal became palatal; *e. g.*, I. E. *onqos, *hook*, Skt. anka, Grk. ὄγκος, Lat. uncus; I. E. *kongho, *mussel*, Skt. çan̄kha, Grk. κόγχος, Lat. congius; I. E. *penqe, *five*, Skt. pañca, Lat. quinque, Lith. penki. (For Grk. πέντε, see 141.)

m.

178. I. E. m remained m in Aryan, as generally in the other derived languages; *e. g.*, I. E. *māter, *mother*, Skt. mātar, Av. mātar, Anc. Pers. -mātar, Grk. μήτηρ, Lat. māter; I. E. *esmi, *I am*, Skt. asmi, Av. ahmi, Anc. Pers. amiy, Grk. εἰμί, Lat. sum, Goth. im, Lith. esmì; I. E. *k̂m̥tom, *hundred*, Skt. çatam, Av. satəm, Grk. ἑ-κατόν, Lat. centum.

b. Aryan Nasals in Ancient Persian.

n.

179. Aryan n remained n in Anc. Pers. before vowels, but was not written before explosives nor when final; *e. g.*, Anc. Pers. nāma, *name*, Av. nāma, Skt. nāma; Anc. Pers. ana, *this*, Av. ana, Skt. ana; Anc. Pers. ba^{n}daka, *subject*, YAv. banda, Skt. bhanda; Anc. Pers. abara^{n}, *they bore*, Skt. abharan.

Cf. also: Anc. Pers. zra^{n}ka, *Drangiana*, Elam.

[zirra]nkaš, Bab. za-ra-an-ga-', Grk. Δραγγιανή; Anc. Pers. viⁿdafarnah, *Intaphernes*, Elam. maintaparna, Grk. Ἰνταφέρνης; Anc. Pers. kaⁿbūjiya, *Cambyses*, Elam. kanpuziya, Bab. kam-bu-zi-ia, Grk. Καμβύσης.

m.

180. Aryan m remained m in Anc. Pers.; *e. g.*, Anc. Pers. nāma, *name*, Av. nāma, Skt. nāma; Anc. Pers. -mātar, *mother* (New Pers. mādar), Av. mātar, Skt. mātar.

(a) Iranian dm appears in Anc. Pers. as m; *e. g.*, Anc. Pers. māniyam, *estate* (?), GAv. dəmānəm.

(b) Aryan sm appears in Anc. Pers. as m; *e. g.*, Anc. Pers. amahy, *we are*, Skt. smas, Ved. smasi (I. E. *s-mes[i]). (See 192.)

(c) For the use of m in one place before an explosive, see 66. 3, note.

7. a. Indo-European Liquids in Aryan.

l.

181. I. E. l, which remained unchanged in the other derived languages generally, appeared in Aryan usually as r; *e. g.*, I. E. *leiq, *leave*, Skt. riṇakti, Grk. λείπω, Lat. linquo; I. E. *leuq, *leuk̑, *light*, Skt. rokas, *a light*, lokas, *a lighting*, Av. raocō, Anc. Pers. rauca, Arm. lois, Grk. λευκός, Lat. lux, O. Ir. lōche.

r.

182. I. E. r appears in Aryan usually as r, remaining unchanged also in the other derived languages generally; *e. g.*, I. E. *peri, *around*, Skt. pari, Av. pairi, Anc. Pers. pariy, Grk. πέρι; I. E. *pro, *before*, Skt. pra, Av. frā, Anc. Pers. fra-, Grk. πρό, Lat. pro.

b. Aryan Liquids in Ancient Persian.

l, r.

183. Consonantal l occurs in Anc. Pers. only in two borrowed proper names: **haldita** (a personal name), Elam. **altita**, and **dubāla** (a district in Babylonia). Cf. the following, in accordance with 181: Anc. Pers. **arbaira**, *Arbela*, Bab. **ar-ba-'il**, Grk. Ἄρβηλα; Anc. Pers. **nadiⁿtabaira**, *Nidintu-Bêl*, Elam. **nititpel**, Bab. **ni-din-tu-(ilu)bêl**; Anc. Pers. **bābiru**, Elam. **papili**, Bab. **babilu**, Grk. Βαβυλών.

184. Aryan **r** remained **r** in Anc. Pers.; *e. g.*, Anc. Pers. **pariy**, *around*, Av. **pairi**, Skt. **pari**; Anc. Pers. **fra-**, *forth*, Av. **frā**, Skt. **pra**; Anc. Pers. **raucah**, *day*, YAv. **ruc**, Skt. **ruc**.

(a) Aryan **sr** became in Anc. Pers. **r**; *e. g.*, Anc. Pers. **rautah**, *river* (New Pers. **rōd**), Skt. **srotas** (rt. **sru**, *flow*). (See 192.)

8. a. Indo-European Semivowels in Aryan.

y.

185. I. E. **y** remained unchanged in Aryan, as is true, to a great extent, of the other derived languages, though initial **y** was lost in O. Ir. and became *spiritus asper* in Grk., intervocalic **y** disappeared in Grk., Lat., and the Keltic group, and postconsonantal **y** was often disguised in euphonic combinations peculiar to the various languages. Examples of I. E. **y** are the following: I. E. ***yos**, *which*, Skt. **ya**, Grk. ὅς; I. E. ***yūs**, *ye*, Skt. **yūyam** (328), Grk. ὑμεῖς, Goth. **jus**, Lith. **jũs**; I. E. ***eym̥**, *I went*, Skt. **āyam**, Anc. Pers. **-āyam**, Grk. ᾖα (for ἦα < ἤyα); I. E. ***(s)pek̂yō**, *I see*, Skt. **paçyāmi**, Av. **spasyēmi**, Lat. **specio**.

w.

186. I. E. **w** remained in Aryan, as generally in the other derived languages, though in Arm. it appeared sometimes as **g**, in Lat. sometimes as **u** after a consonant, and in Grk. it disappeared early in most dialects, first medially, then initially; *e. g.*, I. E. ***wei**, *we*, Skt. **vayam**, Av. **vaēm**; I. E. ***weq**, *speak*, Skt. **vacas**, Grk. ϝέπος, Lat. **vox**; I. E. ***ek̂wos**, *horse*, Skt. **açva**, YAv. **aspa**, Anc. Pers. **aspa-** (219. 2, a), Grk. ἵππος, Lat. **equus**; Skt. **sarva**, *whole*, Av. **haurva**, Grk. ὅλος for ὅλϝος; I. E. ***ebhewet**, *he became*, Skt. **abhavat**, Anc. Pers. **abava**.

187. After consonants in I. E. **y** was interchanged with **iy** and **w** with **uw**, **iy** and **uw** occurring regularly after long syllables, **y** and **w** after short; *e. g.*, I. E. ***pətriyo**, *of a father*, Skt. **pitriyas**, Grk. πάτριος, Lat. **patrius**; but I. E. ***medhyo**, *middle*, Skt. **madhyas**, Grk. μέσος, Lat. **medius**, Goth. **midjis**; Skt. **açnuvanti**, *they attain*, but **sunvanti**, *they press out the soma*.

b. Aryan Semivowels in Ancient Persian.

y.

188. Aryan **y** remained in Anc. Pers., but after consonants is written **iy** (cf. 66. 1). The pronunciation in many such cases may have been **iy**, as it must have been when a preceding **t** was not changed to **š** (164. a); *e. g.*, Anc. Pers. **-āyam**, *I went*, Skt. **āyam**; Anc. Pers. **ā-jamiyā** (opt.), *may it come;* Skt. **gamyāt** (I. E. ***gm̥myēt**). For **tya** see 164 (b).

w.

189. Aryan **w** remained as **v** in Anc. Pers., but after

consonants is written uv (cf. 66. 1); *e. g.*, Anc. Pers. -vā, *or*, Av. vā, Skt. vā; Anc. Pers. abava, *he became*, Skt. abhavat; Anc. Pers. haruva, *whole*, YAv. haurva, Skt. sarva.

9. a. Indo-European Spirants in Aryan.

s.

190. I. E. s remained s in Aryan unless preceded by an i- or u-vowel, r̥ or r, or an original palatal or velar, in which cases it became š; *e. g.*, I. E. *septm̥, *seven*, Skt. sapta, Grk. ἑπτά, Lat. septem, Goth. sibun; I. E. *esti, *he is*, Skt. asti, Av. asti, Anc. Pers. astiy, Grk. ἔστι, Lat. est; Skt. tiṣṭhati, *he stands*, Av. hištaiti, Anc. Pers. aištatā, Grk. ἵστημι, Lat. sisto; I. E. *ĝeus, *taste*, Skt. joṣṭar, Anc. Pers. dauštar, Grk. γευστήριον; I. E. *dhers, *dare*, Skt. dharṣati, Av. daršiš, Anc. Pers. adaršnauš, Grk. θάρσος; Skt. vakṣi (I. E. -k̂s-), *thou willest*, but vaçmi, *I will;* I. E. *weq, *say*, Skt. vakṣyāmi, Av. vaxšyā.

(a) I. E. k̂s was in Iranian reduced to š and so appears in Anc. Pers.; *e. g.*, niyapišam, *I cut* (*an inscription*), of the s-class of verbs (471), I. E. rt. *peik̂.

(b) The occurrence of the š < I. E. s at the beginning of certain enclitic pronouns is to be explained from the influence of a final i or u of the word to which the enclitic was joined, as in tyai-šaiy; then the forms with š were generalized, and we find avaθāšaiy, adamšām, etc. Cf. Av. šē after i or u, but hē after a.

z.

191. I. E. z became Aryan ž under the same conditions under which I. E. s became Aryan š (190),

otherwise it appeared as z; *e. g.*, I. E. *mizdhos, *reward*, Av. miždəm, Grk. μισθός; Skt. dūḍhī, *ill-thinking*, Av. duždå; I. E. *sezd, redupl. from *sed, *sit*, Av. hazd-.

b. Aryan Original Spirants in Ancient Persian.

s.

192. Aryan s remained in Anc. Pers. before a tenuis, but elsewhere became h, which disappeared before m and r (180, b; 184, a), before u, often medially before other vowels, and also when final; *e. g.*, Anc. Pers. astiy, *he is*, Av. asti, Skt. asti; Anc. Pers. hainā, *army*, YAv. haēnā, Skt. senā; Anc. Pers. nāham (acc.), *nose*, YAv. nāh, Skt. nās; Anc. Pers. amiy, *I am*, Av. ahmi, Skt. asmi; Anc. Pers. rauta(h), *river* (New Pers. rōd), Skt. srotas (rt. sru, *flow*); Anc. Pers. prefix u- (uv-), *well*, Av. hu-, Skt. su-; Anc. Pers. aura, *god*, Av. ahura, Skt. asura; Anc. Pers. aištatā, *he stood*, Av. hištaiti; Anc. Pers. θātiy (for *θahatiy), *he says*, but aθaha, *he said*, Av. sah, Skt. çaṅs; Anc. Pers. aniya (nom. sg. m.), *other*, Av. anyō, Skt. anyas.

(a) The Anc. Pers. shows a variation between ufrastam and ufraštam, a variation that belonged probably to the spoken language as well as to the written.

š.

193. The Aryan š, developed from original s under conditions mentioned in 190, remained š in Anc. Pers.; *e. g.*, Anc. Pers. aištatā, *he stood*, Av. hištaiti, Skt. tiṣṭhati; Anc. Pers. dauštar, *friend*, Skt. joṣṭar; Anc. Pers. adaršnauš, *he dared*, Av. daršiš, Skt. dharṣati.

(a) In niy-aštāyam, *I commanded*, from root stā,

stand, and niyašādayam, *I established*, from root had, *sit*, the š resulting from the vowel of the prefix has been taken over into the augmented form.

CHAPTER VII.

SANDHI.

194. In the various Indo-European languages both vowel and consonant sounds have undergone changes through the influence of other vowels or consonants in the same sound group. This sound group may consist of the parts of a single word, as when to a root there is added a derivative suffix or an inflectional ending. Or, since language is spoken not in individual words, but always in phrases and sentences, the sound group may consist of parts of several connected words, these parts being phonetically no less closely related than those of the single word. According as such changes occur within words or between words, they are called changes of internal combination or of external combination. The principles controlling both these classes of phonetic change are included under the general name of Sandhi—a term adopted from the Hindu grammarians and meaning literally *a putting together*. However, Sandhi is often used to designate the principles of external combination only.

Many of these sound changes are inherited from the Indo-European period. Thus we should have I. E. loc. pl. *gou-su from *gou, *cow*, Skt. goṣu, Grk. βουσί, but I. E. gen. pl. *gow-ōm, Skt. gavām, Grk. βοῶν; I. E. loc. pl. *bhr̥ĝhn̥t-su from *bhr̥ĝhn̥t, *great*,

Skt. **bṛhat-su**, but instr. pl. ***bhṛĝhṇd-bhī(s)**, Skt. **bṛhad-bhis**; I. E. ***tot peku**, *this cow*, Skt. **tat paçu**, but I. E. ***tod dōnom**, *this gift*, Skt. **tad dānam**.

195. Because the mind of the speaker usually anticipates his spoken word, it is often the case that the vocal organs while pronouncing one sound are preparing for another to follow, with the result that the former is modified through anticipation of the latter, or there occurs regressive assimilation, as in I. E. ***juqtos**, *yoked*, beside ***jugom**, *yoke*. Occasionally the vocal organs lingering on a sound just uttered, under its influence modify a following sound, or there occurs progressive assimilation, as when I. E. ***bhṇdh-to**, *bound*, became Skt. **baddha**.

196. In many cases it happened that, when a word had assumed different forms according to the combination of its final sound with the initial sound of a following word, these doublet forms continued for a time, each in its proper place; then as the influences producing or requiring the change ceased to operate, the two forms were used indiscriminately until one gained the ascendancy and eventually came to be used to the exclusion of the other, regardless of its phonetic position.

This is illustrated in the use of the Greek πρός and προτί representing Indo-European ***proty** and ***proti** (Skt. **praty** and **prati**), the one form being used when the initial sound of the following word was a vowel, the other when the following initial was a consonant. But πρός came to be the preferred form in Attic and was used without reference to the character of the following sound, while in other dialects προτί was generalized and πρός disappeared.

1. Indo-European Contraction of Vowels.

197. The i- and u-diphthongs discussed in previous sections (98ff) were strictly the result of the contraction of two vowel sounds. Combinations of a, e, and o, with a, e, and o, produced long vowels. Thus:

ă + a > ā, *e. g.*, I. E. *ek̂wā-a (prob. ending of instr. sg., cf. 254) > *ek̂wā, Skt. (Ved.) açvā, Grk. λάθρᾱ, Dor. κρύφᾱ.

ā + e > ā, *e. g.*, I. E. nom. pl. *ek̂wā-es > *ek̂wās, Skt. (Ved.) açvās. Cf. Goth. gibōs, Osc. scriftās.

e + a > ē, *e. g.*, I. E. *qe-a (prob. ending of instr. sg., cf. 254) > qē, Grk. πῆ.

ĕ̄ + e > ē, *e. g.*, I. E. *e-es-m̥ > *ēs-m̥, Skt. āsam, Grk. (Hom.) ἦα.

o + e > ō, *e. g.*, I. E. nom. pl. *ek̂wo-es > *ek̂wōs, Skt. açvās. Cf. Goth. wulfōs.

o + o > ō, *e. g.*, I. E. gen. pl. *ek̂wo-ōm > *ek̂wōm, Grk. ἵππων. (Skt. açvānām is a reformation.)

Contraction of Vowel and Diphthong.

198. The contraction of ă̄, ĕ̄, ŏ̄ with a diphthong resulted in a long diphthong; *e. g.*, I. E. dat. sg. *ek̂wā-ai > *ek̂wāi, and *ek̂wo-ai > *ek̂wōi; I. E. *e-ey-m̥ > *ēy-m̥, Skt. āyam, Grk. ᾖα (for *ἦα < *ἤγα).

2. Internal Combination in Indo-European.

a. *Explosives and Spirants.*

199. The voiced consonants (*i. e.*, mediæ and z) before voiceless sounds (*i. e.*, tenues and s) became voiceless; *e. g.*, I. E., *jugom, *yoke*, *juqtos, *yoked*, Skt. yugam, yukta, Grk. ζύγον, ζευκτός, Lat. iugum, iunctus; I. E. loc. pl. *petsu, from *ped, *foot*, Skt. patsu.

200. Tenues before mediæ became mediæ, and the voiceless spirant before mediæ became voiced; *e. g.*, I. E. *ped, *foot*, but bd for pd in Skt. upa-bda, Grk. ἐπίβδαι; I. E. *nizdos, *nest*, zd for sd from root *sed, *sit*.

201. The immediate succession of two aspiratæ was avoided by deaspiration of the first; *e. g.*, I. E. *bhe-bhidh-dhi, from root *bheidh, *persuade*, became *bhe-bhid^{z}dhi (203), whence the Grk. πέπισθι.

202. An aspirata before an unaspirated sound, whether explosive, sibilant, or combination of explosive and sibilant, transferred its aspiration to the second sound, and if the first was voiced the second also became voiced; *e. g.*, I. E. *bhn̥dh-to, from root bhn̥dh, *bind*, became *bhn̥d^{z}dho (203), whence the Skt. baddha; I. E. *ghsen became *gzhen, whence the Grk. ξένος, *stranger;* I. E. qn̥thskō, *I suffer*, became *qn̥tskhō, whence the Grk. *patskhō > πάσχω.

Transfer of aspiration in the combinations ths, phs, dhs, bhs, qhθ, k̂hθ, ghδ, ĝhδ, has been mentioned in 139, note.

203. The succession of two dental explosives developed a spirantal glide between the two sounds, t-t, t-th, d-d, d-dh becoming t^{s}t, t^{s}th, d^{z}d, d^{z}dh; *e. g.*, I. E. *bhebhid-dhi, from root *bheidh, *persuade*, became *bhebhid^{z}dhi, Grk. πέπισθι; I. E. *set-to for *sed-to, from root *sed, *sit*, became *set^{s}to, Skt. satta, Av. hasta.

NOTE.—ssk̂(h) became sk̂(h); *e. g.*, I. E. *is-sk̂(h)ō, from root *ais, *seek*, became *isk̂(h)o.

b. *Nasals.*

204. The nasal was assimilated to a following explosive. See 137.

c. *Semivowels.*

205. **y** and **w**, as well as **r**, **n**, and **m**, often represented the corresponding vowel in consonantal function before other vowels; *e. g.*, I. E. ***bhw-ī-yēt**, opt. 3 sg. from root ***bhu**, *be;* I. E. ***treyes**, *three*, Skt. **trayas**; so I. E. ***mātr̥-su**, loc. pl. of ***māter**, *mother*, beside gen. sg. ***mātres**, and ***k̂(u)wn̥-su**, loc. pl. of ***k̂(u)wō(n)**, *dog*, beside gen. sg. ***k̂un-es**.

206. **w** was lost from enclitic pronominal forms, probably first after certain consonants; *e. g.*, 2 pers. pron., loc. sg. ***toi** for ***twoi**. It also disappeared between a long vowel and consonantal **m**; *e. g.*, I. E. acc. **dyām**, beside nom. **dyāus**, *sky*, Skt. **dyām**, Grk. Ζήν.

3. External Combination in Indo-European.

207. For explosives and spirants the same rule holds in external as in internal combination, the regressive assimilation of voiced and voiceless sounds; *e. g.*, I. E. ***edōt**, *he gave*, + ***bhrātrai**, *to the brother*, became ***edōd-bhrātrai**, Skt. **adād bhrātre**; I. E. ***tod**, *that*, + ***siyēt**, *may be*, became ***tot-siyēt**, Skt. **tat siyāt**.

208. Before consonants final **ēi** became **ē** and final **ōu** became **ō**; *e. g.*, I. E. loc. sg. of i-stems, ***-ēi** > **ē** as in Vedic **agnā**; I. E. ***dwō sūnū**, *two sons*, but **dwōw ek̂wōu**, *two horses*. So in Sanskrit the Veda has in nom. acc. dual **-ā** (original o-stems), seldom **-āu**, while the classical Sanskrit has only **āu**, the Greek only ω.

209. Final **i** and **u** remained vowels before initial consonants, but became consonantal, *i. e.*, **y** and **w**, before initial vowel sounds; *e. g.*, I. E. ***proti tod**, *toward this*, but ***proty ek̂wons**, *toward the horses;* I. E.

*medhu bheveti, *the honey becomes*, but *medhw esti, *the honey is*. Cf. 205.

(a) m̥ before vowels was probably pronounced m̥m. This may explain the distinction between Grk. πόδα and Skt. pādam, but cf. 107.

(b) On the interchange of y and w with iy and uw according to the quantity of the preceding syllable, see 187. This change belongs also to external combination.

210. Under certain conditions of accent and sentence combination the final nasal and r disappeared; *e. g.*, I. E. *uksēn, *ox*, beside *uksē, Skt. ukṣā; I. E. *pətēr, *father*, Grk. πατήρ, beside I. E. *pətē, Skt. pitā.

211. As in internal combination ssk̂(h) became sk̂(h) (203, note), so the dropping of initial s before a consonant, giving rise to doublet forms like the Greek στέγος, τέγος, may have occurred first where the preceding word ended in s.

4. Combination of Vowels in Ancient Persian.

213. Since Indo-European a, e, o are all represented by the Ancient Persian a (75, 87ff), the principles of their combination in Indo-European, if applied in Ancient Persian, mean always the union of a with a into ā, and the union of a with i or u gives a diphthong, *i. e.*, ai or au; *e. g.*, Anc. Pers. fra-ajanam became frājanam, *I cut off;* parā-idiy became paraidiy, *go thou forth;* demonstr. pron. ha-u became hauv, I. E. *so-u, Grk. οὗτος.

214. If the h between vowels, which was lost from the written form of certain Ancient Persian words (192), was entirely unpronounced, then these vowels also must have united into a long vowel or diphthong:

and θaatiy from *θahatiy, *he says*, is to be pronounced θātiy; a-ištatā from *ahištatā, *he halted*, is to be pronounced aištatā; and a-ura from *ahura, *god*, becomes aura.

5. Anaptyxis.

215. Anaptyxis, or the development of a vowel sound between a liquid or a nasal and another consonant, either preceding or following, occurs frequently in the Indo-European languages. This sound is merely a glide vowel originating from the semivocalic nature of the liquid or nasal. Thus are formed Grk. ἕβδομος from *ἑβδμ-, Lat. poculum from *poclum, stabilis from *stablis.

In the Aryan languages anaptyxis occurs in the Prākrit dialect of the Sanskrit, as Prākt. hariṣa, Skt. harṣa, *joy*, and it is very common in Avestan; *e. g.*, GAv. dadəmahī, *we give*, Skt. dadmasi; GAv. fərā, *forth*, YAv. frā, Skt. prā. But in Ancient Persian u between d and r, and between g and d, when the following syllable or the preceding syllable has an u-sound, furnishes the only sure examples of anaptyxis; *e. g.*, Anc. Pers. adurujiya, *he lied*, GAv. druj, Skt. druh; Anc. Pers. duruva, *secure*, YAv. drva, Skt. dhruva; Anc. Pers. suguda, *Sogdiana*, YAv. suγδa, Elam. šuktaš, Bab. su-ug-du, Grk. Σογδυανή.

In the pronunciation of words like drauga, brātar, framānā, there may have been between d, b or f, and r something of the sound of a, which the Ancient Persian writing would allow, and which is suggested by the Modern Persian duroγ, birādar, farmān.

6. Combination of Consonants in Ancient Persian.

216. The Indo-European law of assimilation of

voiced and voiceless consonants continued to operate in Ancient Persian; *e. g.*, vahyazdāta, for *vahyasdāta; bagabuxša, from baga + root *buj, *free;* nijāyam, *I went forth;* cf. Av. niš, niž, and 68.

(a) But š before a sonant is preserved in the compound dušiyāra (duš + *yār; cf. Skt. duṣ-, dur-, Av. duš-, duž-) probably with a feeling of the independence of the two elements.

217. While the primitive Aryan followed the Indo-European in the transfer of aspiration with progressive assimilation in the combination of an aspirate with an unaspirated sound (202), yet through the influence of analogy with forms properly retaining the ta-suffix, as karta, *made*, pāta, *protected*, certain participles in Ancient Persian, as in Avestan, kept the -ta with regressive assimilation; *e. g.*, I. E. *bhn̥dh-to, *bound*, Prim. Ar. *bad[z]dha, Skt. baddha, but Anc. Pers. basta instead of *bazda; Skt. drugdha, *deceived*, but Anc. Pers. duruxta instead of *durugda.

218. The influence of Aryan palatal vowels in the palatalization of preceding velars (89 end, 145) continues in Ancient Persian.

219. The Aryan tenues had different treatment generally in Ancient Persian, as in Avestan, according as they were followed by a vowel or a consonant. Thus:

(1) Ar. k (I. E. q) in Anc. Pers. remained k before vowels, but was changed to x before consonants (146).

(2) Ar. ś (I. E. k̂) became in Anc. Pers. θ or s before vowels and most consonants, but was changed to š before n and generally before t (153, 157. a, b).

(a) But Ar. św from I. E. k̂w became in Anc. Pers. s or sp; *e. g.*, I. E. *ek̂wos, *horse*, Anc. Pers. asa and aspa-, Skt. açva, YAv. aspa, New Pers. asp, Grk. ἵππος.

(3) Ar. **t** (I. E. **t**) remained in Anc. Pers. **t** before vowels and after sibilants, but elsewhere became *θ* (164); **tr** became θ^r (165).

(a) But Ar. **ty** became **šy** in Anc. Pers. in **hašiya**, while **t** is retained in **tya** and **martiya** (164. a, b).

(b) The development of a spirant between successive dental explosives (203) may be seen in Anc. Pers. **basta**, *bound*, Skt. **baddha**, from I. E. ***bhn̥dᶻdho** (cf. 202).

(4) Ar. **p** (I. E. **p**) remained in Anc. Pers. **p** before vowels and after sibilants, but elsewhere became **f** (173).

220. Aryan tenues aspiratæ, when preceded by a sibilant and followed by a sonant, lost their aspiration in Ancient Persian, as in Avestan, and appear as simple tenues. Thus, as has been mentioned above, in such position **kh** became **k** (147), **th** became **t** (166), and **ph** became (Iranian) **p** (174).

221. Aryan mediæ regularly remained unchanged, but **d** before **m** disappeared (180. a).

222. Aryan mediæ aspiratæ, upon coming into Ancient Persian, lost their aspiration and appear always as simple mediæ. Thus, as has been mentioned above, **gh** fell together with **g** (149), **jh** with **j** (152), **ž́h** (I. E. **ĝh**) with **z** (I. E. **ĝ**) becoming **d** or **z** (159), **dh** with **d** (168) and **bh** with **b** (175).

223. According to the law stated in 177, the nasal was palatalized with the Aryan palatalization of a following velar, but the nasal was regularly not written before explosives in Ancient Persian (179).

224. After consonants in Ancient Persian, **iy** and **uv** occur instead of **y** and **v** (188, 189).

7

(a) Aryan **bhw**, from I. E. **bhw**, became **b** in Anc. Pers.; *e. g.*, **bīyā**, *may he be*, I. E. ***bhw-ī-yēt.**

225. I. E. **s** or **z** in Aryan became **š**, **ž** when preceded by an **i-** or **u-**vowel, by **r̥** or **r**, or by an original palatal or velar explosive (190, 191), and this **š** (**ž**) remained in such positions in Ancient Persian (193).

226. Aryan **s** became **h** in Ancient Persian in all places except before a tenuis. This **h** disappeared before **m** and **r**, before **u**, often medially before other vowels, and also when final (192).

In like manner Ar. **sw** became Anc. Pers. **uv**; *e. g.*, I. E. ***swe**, ***swo**, *one's own*, Skt. **sva**, Anc. Pers. **uva-**.

7. Permitted Finals.

227. Final **i** or **u** is supplemented by the addition of the corresponding semivowel (66. 1); *e. g.*, Anc. Pers. **pariy**, *about*, Av. **pairi**, Skt. **pari**; Anc. Pers. **naiy**, *not*, but **nai** with the enclitics **-šim** and **-maiy** (yet **naiy** occurs with **-diš**); Anc. Pers. **paruv** (nom. sg.), *many*, but **parūnām** (gen. pl.; also **parūv^{a}nām**), YAv. **pouru**, Skt. **puru**; Anc. Pers. **hauv**, *that*, but written **hau** with enclitics **-šaiy** and **-ciy**.

228. When the Ancient Persian fails to conform to the historical quantity of final vowels, the change is merely graphic; *e. g.*, Anc. Pers. **abara^{n}tā**, *they bore themselves*, Skt. **abharanta**, Grk. ἐφέροντο. (See 61.)

229. Final **t** and **d** of the Aryan disappeared from Ancient Persian; *e. g.*, Anc. Pers. **abara**, *he bore*, Skt. **abharat**. Bartholomae contends that in pronunciation there was still some trace of the omitted letter and indicates this by ^{h}, **abara^{h}**.

(a) The same disappearance occurs in the first member of a compound; as in the participial stem appear-

ing in **dāraya-vau-**, *possessing wealth*, < Iran. ***dāra-yat̰-vahu**; **viⁿda-farnah**, *finding glory*, < Iran. ***vindat̰-xᵛarənah**.

(b) The original final dental, either explosive or sibilant, appears as **š** before the enclitic **-ciy**; *e. g.*, **aniyašciy**, Skt. **anyaccid** (**anyat** + **cit**); **kašciy** for ***kas-ciy**. It may be true, as some have held, that the **d** in such forms as **avadim**, **avadiš** is properly the original final dental of **ava** and not the initial sound of the enclitic pronoun. From its appearance in such places it might easily have become in speech and in writing a part of the following pronoun.

230. Final **n** is never written in Ancient Persian (179).

231. Final **h** representing Aryan **s** was lost (192, 226). Here, again, Bartholomae believes that in pronunciation there was a trace of the omitted letter and writes ʰ. (See 229.)

232. It will thus be seen that, in addition to the vowel **a** and the semivowels **y** and **v**, mentioned above, only **m**, **r**, and **š** may end Ancient Persian words.

CHAPTER VIII.

WORD FORMATION.

233. A STUDY of the formation of words in the Indo-European languages leads to the belief that in the earliest period the parent tongue was composed largely of simple and distinct words which we may call roots, and that in the process of language development many of these words were joined to others, modifying the original meaning and introducing new

forms. However, it is not to be understood that the quoted roots of the grammars were, in fact, among the original words, but are rather the nearest approach to these warranted by known forms; and, again, many of the elements of derived words may never have been independent. The process of word formation here mentioned, moreover, not only belonged to the Indo-European period, but has continued to a great extent all through the history of the derived languages.

1. Compounds.

234. The combination of grammatically related words into a single word forms a compound.

Classified according to their meaning, compounds of nouns and adjectives are Coördinating or Subordinating; *i. e.*, there is mere addition of elements in the same construction, or else one element is in some way defined by the other. The former class are also called Copulative, and outside of Sanskrit occur but rarely in the derived languages. Such are I. E. ***dwō-dek̂m̥**, ***duwo-dek̂m̥**, *two and ten;* Skt. **dvā-daça**, Grk. δώ-δεκα, δυώ-δεκα, Lat. **duo-decim**; Skt. **candrādityāu**, *moon and sun;* **ahorātram**, *day and night.*

235. Subordinating compounds consist largely of what the grammarians call Determinatives, in which (1) one element stands in case relation to the other (Dependent Compounds), or (2) the first element stands to the second in the relation of adjective or adverb modifier (Descriptive Compounds); again, Determinative Compounds may have an adjective force through the addition of a secondary notion of possession, and are then called (3) Possessive Compounds.

Examples of these classes are the following:

(1) Anc. Pers. xšaθʳa-pāvan, *kingdom-protector, satrap;* aršti-bara (act.), *spear-bearer*; asa-bāri (pass.), *horse-borne, horseman;* uvā-maršiyu, *dying by one's own hand;* Skt. mātr̥-ṣvasar, *mother's sister;* veda-vid, *Veda-knowing;* Grk. ναυμαχία, *battle of ships;* πατροφόνος, *slayer of a father;* Lat. sol-stitium, *standing of the sun;* agri-cola, *cultivator of the field.*

(2) Anc. Pers. ariya c[i]θʳa, *of Aryan lineage* (the two parts of the compound here possibly preserving enough of their independence to be written separately); u-barta, *well-esteemed;* θūra-vāhara, *vigorous springtime;* Skt. eka-vīra, *only hero;* mahā-dhana, *great wealth;* Grk. εὐ-γενής, *well-born;* ἑκατόμ-βη, *hundred cattle;* Lat. meri-dies, *mid-day;* per-magnus, *very large.*

(3) Anc. Pers. u-martiya, *possessing good men;* tigra-xauda, *having a pointed cap;* hama-pitar, *having a common father;* Skt. br̥had-ratha, *having great chariots;* agni-tejas, *having the brightness of fire;* Grk. ἀργυρο-τόξος, *having a silver bow;* τετρά-πους, *having four feet;* Lat. flavi-comus, *having yellow hair;* bi-dens, *having two teeth.*

236. Classified according to their form, compounds may have for the first member (1) the stem of an inflected noun, adjective, or pronoun; (2) a particle uninflected from Indo-European times; (3) an original adverbial form used also independently; (4) a case form or an adverb developed after Indo-European times.

Examples of these classes are the following:

(1) Anc. Pers. xšayāršan, for xšaya-aršan, *king-man, Xerxes;* paru-zana, *having many people;* uvā-

maršiyu, *dying by one's own hand;* Skt. deva-senā, *army of gods;* bṛhad-ratha, *having great chariots;* Grk. βουλη-φόρος, *counsel-bearing;* κακο-δαίμων, *ill-fated;* αὐτό-νομος, *with its own laws;* Lat. signi-fer, *standard-bearer;* magn-animus, *great-souled.*

(2) Anc. Pers. a-xšata, *unhurt;* an-āhita, *spotless* (*goddess*); duši-yāra, *bad harvest;* Skt. a-kṣata, *unhurt;* dur-manās, *ill-thinking;* Grk. ἄ-γνωτος, *unknown;* ἁ-πλοῦς, *one-fold;* δυσ-μενής, *ill-thinking;* Lat. in-eptus, *unsuited;* sim-plex, *one-fold.*

(3) Anc. Pers. fra-tarta, *departed from;* Skt. pra-patha, *forward path;* Grk. προ-ηγεμών, *guide* (*going*) *before;* Lat. pro-cursus, *forward running.* (Adverbial elements of compounds are mentioned below, 546.)

(4) Skt. puṣṭim-bhara, *prosperity-bringing;* viṣu-vṛt, *turning to both sides;* Grk. Διόσ-κουροι, *sons of Zeus;* παλαί-φατος, *said long ago;* Lat. postri-die, *on the next day;* bene-volens, *well-wishing.*

2. Suffixes.

237. When either element of a compound has ceased to be regarded as ever having been distinct, then the word is to be considered simple. But if one element, while losing its independence, is still recognized as having a definite value in a series of similarly formed words, it then becomes a prefix or a suffix to the other element; *e. g.*, Eng. -ly, for like, originally līc, *body*, in friend-ly, man-ly, kind-ly, etc. But the original signification of most suffixes, even the question whether they ever existed as independent words, it is now impossible to determine. They are used either to form new words or to indicate different relations of words in sentences; *i. e.*, we have

word-forming suffixes and inflectional suffixes; *e. g.*, I. E. *pəter, *father*, *māter, *mother*, Anc. Pers. pitar, -mātar, Skt. pitar, mātar, Grk. πατήρ, μήτηρ, Lat. pater, mater, show the word forming suffix -ter, while in the accusative case, I. E. *pə-ter-m̥, *mā-ter-m̥, Skt. pitaram, mātaram, Grk. πατέρα, μητέρα, Lat. patrem, matrem, appears the inflectional suffix -m̥ in addition to the -ter suffix.

238. A formative suffix may be added to what is already a combination of root and suffix, in which case the first suffix is called primary and the other secondary. The name secondary is thus commonly applied to the suffix of a word derived from a noun stem as distinguished from that of a word derived directly from a root or verbal stem, since the noun stem itself is so often a derivative from a verb.

Nouns which add their case suffixes directly to a root are called root nouns.

239. In all kinds of elements appear changes of vowel gradation, which, as has before been stated (119ff), were due to the influence of accent, but, while certain grades of vowels were regularly connected with certain forms, and, as will be seen later, thus came to have an important relation to inflectional changes, yet their use was originally the result of accent, and they were not a part of the inflection. Thus, root nouns had originally a distinction of vowel gradation for different cases, but even in the Indo-European period a leveling process had already begun which often led to the generalization of one ablaut form. Some nouns have preserved the distinction in the derived languages, while others appear without vowel gradation; *e. g.*, I. E. *pĕd, *pŏd, *foot*,

shows in nom. sg., Skt. **pāt**, Grk. πούς, Dor. πώς, Lat. **pēs**, but gen. sg., Skt. **padas**, Grk. ποδός, Lat. **pedis**. But from I. E. ***nāus**, *ship*, the extended grade of the diphthong appears in all places, as nom. sg., Skt. **nāus**, Grk. ναῦς, Lat. **nāvis**; gen. sg. I. E. ***nāwos**, Skt. **nāvas**, Grk. Dor. νᾱός, Ion. νηός, Lat. **nāvis**.

The following suffixes occur in Ancient Persian:

(a) Primary Suffixes.

240. **-a-** < I. E. **-e-:-o-**. I. E. **-o-** originally occurred in the second syllable of a dissyllabic light base, as ***wl̥qó**, *wolf*. Then as a suffix it was extended to bases that had not the accent on the second syllable. In ablaut relation with **-o-** was **-e-**, both, of course, becoming **-a-** in Ancient Persian (89, 93); *e. g.*, **gauša**, *ear*, YAv. **gaoša**, Skt. **ghoṣa**.

-an- < I. E. **-en-**. This had, by vowel gradation, the I. E. forms **-en-**, **-on-**, **-ēn-**, **-ōn-**, **-n-**, and (before consonants) **-n̥-**. It was added usually to the low grade of the root and had various meanings; it formed primary *nomina agentis*, substantives from adjectives, names of animate objects, of parts of the body, etc. It occurs in the Anc. Pers. ***aršan**, *man*, of the compound **xšayāršan** (236. 1), YAv. **aršan**, Grk. ἄρσην.

-ana- < I. E. **-eno-:-ono-**. This suffix is used mostly in the formation of participles and abstract nouns; *e. g.*, Anc. Pers. **draujana**, *lying*; **hamarana**, *battle*.

-ah- < I. E. **-es-:-os-**. Even in the earliest period, for the substantive the form of this suffix in **-os-** seems to have been used in the nom. sg., elsewhere **-es-**; and for the adjective **-ēs-** was added for the masculine, **-es-** for the neuter. The root syllable has the

high grade of vowel and carries the accent in nouns, but the accent is on the ending in adjectives. It was commonly used in neuter abstract nouns or in compound adjectives made from such nouns; *e. g.*, Anc. Pers. raucah, *day*, Av. raocah.

-i- < I. E. -i-. This suffix in Indo-European formed masculine and feminine nouns and adjectives. In Aryan it formed *nomina agentis* masculine, and abstract verbal nouns, usually feminine. The grade of the root varied. The suffix is seen in Anc. Pers. bāji, *tribute*.

-iš- < I. E. -əs-. This ə seems to have originated in the second syllable of a dissyllabic heavy base, having the accent on the first syllable (129), being the low grade of the suffix -es-:-os-, -ēs-:-ōs-, and having been generalized. The suffix was used in the formation of neuter nouns; *e. g.*, Anc. Pers. hadīš, *dwelling place*.

-u- < I. E. -u-. This suffix was generally used to form adjectives and was added to the low grade of the root, though the high grade may once have been used in certain cases; *e. g.*, Anc. Pers. paru, *many*, YAv. pouru, Skt. puru; Anc. Pers. a-u-ra, *god*, Av. ah-u-ra, Skt. as-u-ra.

-ka- < I. E. -qo-. The original signification of this suffix is not plain. It occurs in Anc. Pers. uška, *dry land*, YAv. huška.

-ta- < I. E. -to-. As a primary suffix this was used to form participial adjectives and related substantives. It was, therefore, added to the low grade of a root, and commonly the form was perfect passive in meaning, as Anc. Pers. basta, *bound*, karta, *done*.

-tar- < I. E. -ter-. This suffix occurred almost en-

tirely in *nomina agentis* and nouns of relationship, the former masculine, the latter masculine or feminine according to sex. In its ablaut grades the suffix appeared also as **-tor-**, **-tēr-**, **-tōr-**, **-tr-**, and (before consonants) **-tr̥-**. It was added usually to the high grade of the root. Examples are: Anc. Pers. **jatar** or **ja^{n}tar**, *smiter*, YAv. **jantar**, Skt. **hantar**; Anc. Pers. **pitar**, *father*, Av. **pitar**, Skt. **pitar**.

-tah- < I. E. **-t-es-**. This suffix appears in Anc. Pers. **rautah**, *river*, Skt. **srotas**.

-ti- < I. E. **-ti-**. This suffix was used in Indo-European chiefly to form feminine *nomina actionis*. In Aryan, infinitives were developed from these nouns. The root is regularly of the low grade, although before the leveling process had its effect the root vowel probably varied in its grade according to the accent of the cases; *e. g.*, Anc. Pers. **šiyāti**, *well-being*, YAv. **šāti**.

-tu- (or **-θu-** through the influence of **-θw-**) < I. E. **-tu-**. This was used in the formation of abstract substantives or verbal nouns, which originally were masculine, but by analogy became feminine in Greek and sometimes in Aryan and Germanic. In Aryan, as in Latin and Balto-Slavonic, this ending makes infinitives (gerunds and supines). The grade of the root vowel varied (cf. Grk. κλειτύς, κλιτύς). The suffix is seen in Anc. Pers. **gāθu**, *place*, Av. **gātu**, Skt. **gātu**.

-θ^{r}a- < I. E. **-tro-**. This suffix is added to the high grade of the root and indicates the instrument or the place of an action; *e. g.*, Anc. Pers. **xšaθ^{r}a**, *kingdom*, root **xši**, *rule*, Av. **xšaθra**, Skt. **kṣatra**.

-na- < I. E. **-no-**. This suffix formed verbal adjec-

tives and substantives, the adjectives having usually the low grade of the root and the substantives usually the high; *e. g.*, Anc. Pers. hainā, *army*, YAv. haēnā, Skt. senā.

-nah- < I. E. -n-es-. This results from the addition of -es- to -n- (cf. tah < I. E. -t-es- above); *e. g.*, Anc. Pers. *farnah, *glory*, in vi^{n}dafarnah; cf. Av. x^{v}arənah.

-nt- < I. E. -nt-, -n̥t-. This suffix, with also the grades -ent-, -ont-, formed all active participles except the perfect, the grade of the root varying in the different case forms. An Ancient Persian example is *vi^{n}da-, *finding*, in vi^{n}dafarnah.

-man- < I. E. -men-. This was used to form usually *nomina actionis*, sometimes *nomina agentis*. The former became in Aryan, as in Greek, infinitives. The root must have varied originally in the different case forms, but through the leveling process the high grade became general. The suffix is seen in Anc. Pers. asman, *firmament*, YAv. asman, Skt. açman.

-yu- < I. E. -yu-. This suffix, added to the low grade of the root, formed both nouns and adjectives; *e. g.*, Anc. Pers. dahyu, *province*, YAv. dah̯yu, Skt. dasyu.

-ra- < I. E. -ro-. This was used in the formation of both substantives and adjectives, being added originally to the low grade of the root, although sometimes the root varies in the derived languages; as Anc. Pers. *θuxra, *bright* (cf. θuxra, proper name), YAv. suxra, Skt. çukra.

-uva-, -pa- < I. E. -uwo-, -wo-. This suffix formed both substantives and adjectives, but no special meaning is apparent; *e. g.*, Anc. Pers. haruva, YAv. haurva,

Skt. sarva; Anc. Pers. aspa-, *horse*, YAv. aspa, Skt. açva.

-šiya- < Ar. -t-ya-. This appears in Anc. Pers. anušiya, *devoted to*, from anuv, *along*, *after;* haxāmanišiya, *Achæmenidan*, if not treated as an iš-stem.

-šiyu- < I. E. -t-yu-. This was added to the low grade of the root and appears in Anc. Pers. *maršiyu, *dying*, in uvāmaršiyu, Av. mərəθyu, Skt. mr̥tyu.

(b) Secondary Suffixes.

241. Of the suffixes mentioned above, the following occur also as secondary suffixes in Ancient Persian:

-a- < I. E. -e- : -o-; *e. g.*, u-zm-a, *what is up from the earth*, *stake;* margava, *Margian*, from marguš, *Margiana.*

-ana- < I. E. -eno- : -ono-; *e. g.*, varkāna, *Hyrcania*, cf. YAv. vəhrka, *wolf.*

-ka- < I. E. -qo-; *e. g.*, ba^{n}daka, *subject*, from *ba^{n}da, *bond*, YAv. banda, Skt. bandha.

-ra- < I. E. -ro-; *e. g.*, aura, *god*, Av. ahura, Skt. asura.

In addition to these, the following secondary suffixes occur in Ancient Persian:

-ara-, -tara- < I. E. -ero-, -tero-. This was used in forming comparatives (296, 298); *e. g.*, apara, *after*, apatara, *further*, both comparatives from apa-, *away*, Av. apara, Skt. apara, apataram.

-ī- < I. E. -ī-. This suffix was from the earliest times used to form feminines; as, harauvatī, *Arachosia*, from *harah, *water* (cf. Skt. sr̥, *flow*) + vant + ī.

-in- < I. E. -yen- : -in-. Of the various Indo-European forms of this suffix, -in- became generalized in Aryan and was used to form denominative adjectives;

e. g., viθin (?), *royal*. (See Tolman *Lex.*, p. 125, s. v. viθ^{a}ib^{a}iš^a.)

-išta- < I. E. -is-to-. This suffix in the Indo-European period formed the superlative when the comparative had -yes- (300). So Anc. Pers. maθišta (without formative suffix), *greatest*, from *maθ.

-tama- < I. E. -tm̥mo-. This was a superlative suffix, occuring in Anc. Pers. fratama, *foremost*, from fra-, *forth* (302).

-ma- < I. E. -mo-, -m̥mo-. This, also a superlative suffix, was used in words denoting order, rank, or number; *e. g.*, navama, *ninth*, YAv. nāuma, Skt. navama.

-ya-, -iya- < I. E. -yo-, -iyo-. This suffix in Indo-European formed denominative and verbal adjectives, the feminine and neuter of which often became abstract substantives, also in some instances adjectives with comparative meaning; *e. g.*, hašiya, *true*, from *hat, I. E. *sn̥t, low grade stem to the present participle of *es, *be*, YAv. haiθya, Skt. satya; duvitīya, *second*, GAv. daibitya, YAv. bitya, Skt. dvitīya.

-yah- < I. E. -yes-. This was a comparative suffix appearing as -is- in the superlative in -is-to- (296, 300) *e. g.*, *vahyah, *better*, without formative suffix (cf. Skt. vasu, *good*) in proper name vahyazdāta.

-vant- < I. E. -went-: -wn̥t-. This suffix in Aryan, as in Greek, formed denominative adjectives and usually denoted possession; *e. g.*, harauvatī, *Arachosia*, from *harah, *water* + vat, Skt. sarasvatī.

CHAPTER IX.

THE DECLENSION OF NOUNS.

242. NOUNS and adjectives, which were declined alike in the parent tongue, fall into two general classes according as the stem ended in a vowel or a consonant. That is, from Indo-European times there existed a Vocalic and a Consonantal Declension.

243. There were originally three numbers, Singular, Dual, and Plural. The dual seems to have been used first of pairs of objects and was often marked by a modifying word meaning *two*, or *both*. Such a word would in time come to be regarded as sufficient sign of a dual meaning, then the noun easily went over to the plural, and dual forms began to fall into disuse. The dual more nearly held its own in the Aryan languages, in Greek, Old Irish, and Balto-Slavonic.

244. In the very early Indo-European period it is probable that no distinction of form indicated difference of gender. The meaning of the word determined its gender, and, further, there might be a modifying demonstrative, which seems, from the earliest period, to have had distinctive gender forms. That nouns of the ā-declension came to be considered as feminine, or those of the o-declension as masculine, was probably due to the fact that a large number of nouns of each of these classes were feminine or masculine in meaning, and the characteristic of a group within the class was later applied to the entire class. Then -ā- could be used to form feminines, or -o- to form masculines, of derivative nouns; and while, in accordance with the original rule, natural gender

sometimes had the preference in the derived languages, yet in many instances grammatical gender is observed regardless of the word meaning.

The neuter as a distinct form was developed later than the masculine and feminine. But all three genders must have been fully established by the time of the separation of the languages.

245. The Indo-European had eight cases: Nominative, Vocative, Accusative, Genitive, Ablative, Dative, Locative, and Instrumental.

1. Indo-European Case Endings.

246. What the endings of the various cases originally meant cannot now be determined, although it is not improbable that most of them were once distinct words, which fell later to the rank of suffixes. Whatever their origin may have been, it seems that long before the separation of the languages these suffixes had lost their primitive signification and had become mere stereotyped endings.

(a) Masculines and Feminines.

Singular.

247. The Nominative of masculine and feminine nouns was (1) sometimes the bare stem, as in ā-stems (cf. -ə and -ī in nominative of yā-stems), or (2) the vowel of the stem ending might be lengthened, as in n-, r-, and s-stems; again (3) the termination -s was added without lengthening the vowel of the stem ending, as in o-, i-, u-, ī-, ū-stems and those ending in an explosive (except monosyllabic or root nouns), or (4) the -s was added with lengthening of the vowel of the stem ending, as in monosyllabic consonant stems

and those ending in a diphthong. The following examples will illustrate: (1) I. E. *ek̂wā, *mare*, Skt. açvā, Anc. Pers. taumā, Grk. χώρᾱ, Lat. equa; (2) I. E. k̂(u)wō(n), *dog*, Grk. κύων; I. E. *mātēr, *mother*, Skt. mātā, Anc. Pers. -mātā, Grk. μήτηρ; I. E. dusmenēs, *ill-disposed*, Skt. dusmanās, Grk. δυσμενής; (3) I. E. *wl̥qo-s, *wolf*, Skt. vr̥kas; I. E. *owi-s, *sheep*, Skt. avis; I. E. *sūnu-s, *son*, Skt. sūnus; I. E. *neptī-s, *female descendant*, Skt. naptīs; I. E. *swekrū-s, *mother-in-law*, Skt. çvaçrūs; I. E. -tāt-s, Skt. sarvatāt, Av. haurvatās, Grk. ὁλότης, Lat. novitās; (4) I. E. *wōq-s, *voice*, Skt. vāk, Av. vāxš, Lat. vōx (Grk. ὄψ with short vowel from oblique cases); I. E. *nāus, *ship*, Skt. nāuṣ, Grk. ναῦς.

248. The Vocative had no ending. The change of -ā of the stem to -a, and of -o to -e, was an ablaut relation; -i and -u, under the influence of accent became -ei, -oi, and -eu, -ou; the bare stem was a vocative for stems in a diphthong, in -n, -nt, -r, -s; while sometimes, as in stems ending in a simple explosive, the nominative served as a vocative.

249. The Accusative ending was -m for vowel-stems and -m̥ for consonant stems; *e. g.*, I. E. *wl̥qo-m, Skt. vr̥kam, Grk. λύκον, Lat. lupum; I. E. k̂(u)wōn-m̥, Skt. çvānam, Grk. κύνα (for *κυονα).

250. The Genitive ending through ablaut changes appeared as -es, -os, and -s; -es and -os following a consonant, and -s following a vowel. Where the accent fell on the ending, -es occurred; if the preceding syllable had the accent, the ending was -os. Examples of the genitive are I. E. *sn̥t-es, -os, *being*, Skt. satas, Grk. ὄντος; I. E. *ek̂wā-s, Grk. χώρας.

The o-stems, however, had a genitive ending, -syo or

-so, taken from the pronominal declension (334), o-syo becoming Skt. a-sya, Anc. Pers. a-hya, Grk. -οιο, and o-so appearing in the Grk. -ου; *e. g.*, I. E. *wl̥qo-syo, Skt. vr̥kasya, Anc. Pers. kārahyā (-ā for -a), Grk. λύκοιο, λύκου.

251. In the earliest period the Ablative had the same ending as the genitive, but as o-stems borrowed the -syo genitive ending from the pronouns, they also formed an ablative in -ēd, -ōd after the analogy of the pronominal declension; *e. g.*, I. E. *wl̥q-ōd, -ēd, Skt. vr̥kād, Lat. lupō(d), rēctē(d) (cf. 311).

252. The original ending of the Dative was -ai, which in the ā- and o-declensions united with the vowel of the stem, and the result of the contraction was -āi, -ōi; *e. g.*, I. E. *sn̥t-ai, Skt. sate; I. E. *ek̂wāi, Skt. āçvāyāi, Grk. χώρᾳ, Lat. equae; I. E. *wl̥qōi, Skt. vr̥kāya, Av. vəhrkāi, Grk. λύκῳ, Lat. lupō.

253. For a Locative, ā-, o-, ī-, ū-, and consonant-stems added -i, though stems in -n, -r, and -s had also a locative with no ending; i- and u-stems had the locative ending in -ē(i) and -ēu, probably also in -ei, -eu. In the ā- and o-declensions the ending -i united with the stem vowel and formed -āi, -oi, -ei. Hence in the ā-declension the ending became the same as that of the dative. The following are examples of the locative: I. E. *ek̂wāi, Skt. açvāyām, Grk. θηβαι-γενής, Lat. Romae; I. E. wl̥qoi, -ei, Skt. vr̥ke, Grk. οἴκοι, Lat. domi; I. E. *sn̥t-i, Skt. sati, Grk. ὄντι; I. E. *māter-i, -tri, Skt. mātari, Grk. μητέρι, -τρί.

254. The Instrumental ending cannot with certainty be determined. The ā-, o-, i-, and u-declensions show the lengthened stem vowel, -ā, -ō (-ē), -ī, -ū, as the instrumental ending; *e. g.*, I. E. *ek̂wā, Skt. açvā,

Grk. Dor. κρύφᾱ; I. E. *wl̥qē, Skt. vr̥kā. Other nouns seem to have had their instrumental in -a, or in -bhi or -mi.

Dual.

255. The Nominative, Vocative, and Accusative of the dual had the same ending. This varied in the forms from different stems: ā-stems had for these cases the ending -ai, o-stems had -ōu, -ō (208); i-stems had -ī and u-stems -ū; *e. g.*, I. E. *ek̂w-ai, *mares*, Skt. açve; I. E. *wl̥q-ōu, *wl̥q-ō, *wolves*, Skt. Ved. vr̥kāu, vr̥kā, Grk. λύκω, Lat. ambō; I. E. *ow-ī, *sheep*, Skt. avī; I. E. *sūn-ū, *sons*, Skt. sūnū. For the other stems the Indo-European ending cannot be determined; the Aryan languages have -āu, -ā by analogy with o-stems, the Greek has -ε, possibly also a re-formation.

256. From the variety of endings presented for the Genitive and Locative in the languages that have preserved the dual, it is impossible to decide what ending these cases had in the parent tongue. So, of the Dative, Ablative, and Instrumental, we know only that there was a -bh- and an -m-element, as in Skt. -bhyam, Av. -bya, Lith. -m, just as the instrumental singular had -bhi and -mi, and the instrumental plural -bhis and -mis, but further than this the ending is not known.

Plural.

257. The Nominative plural (used also as Vocative) had for all stems the ending -es. By contraction of this termination with the vowel of the stem ending the ā-declension had -ās and the o-declension -ōs; *e. g.*, I. E. *ek̂wās, *mares*, for *ek̂wā-es, Skt. açvās; I.

E. *w̥lqōs, *wolves*, for *w̥lqo-es, Skt. vr̥kās; I. E. *trey-es, *three*, Skt. trayas, Grk. τρεῖς, Cret. τρέες; I. E. *sūnew-es, *sons*, Skt. sūnavas, Grk. ἡδεῖς < *ἡδέϝες; I. E. *māter-es, *mothers*, Skt. mātaras, Grk. μητέρες.

258. In the Accusative -ns was the ending for vowel-stems, -n̥s for consonant stems; *e. g.*, I. E. *eḱwā-ns, Grk. τιμάς, Cret. τιμάνς, Lat. equās; I. E. *w̥lqo-ns, Skt. vr̥kān (277), Grk. λύκους, Cret. λύκονς, Goth. wulfans, Lat. lupōs; I. E. *m̥nti-ns, *thoughts*, Skt. avīn, Av. ažīš, Grk. Cret. πόλινς, Ion. πόλῖς, Lat. ovīs, Goth. anstins; I. E. *sūnu-ns, Skt. sūnūn (277), Grk. Cret. υἰύνς, Lat. manūs, Goth. sununs; I. E. *s̥nt-n̥s, Skt. satas, Grk. ὄντας.

259. The Genitive plural ending in Indo-European was -ōm, which in the ā-declension may have contracted with the -ā of the stem to form -ām, but remained -ōm for all other stems; *e. g.*, Skt. açvānām (278); I. E. *w̥lq-ōm, Skt. vr̥kān-ām (278), Ved. cara-thām, Grk. λύκων, Lat. deum (O. Lat. Romanom); I. E. *triy-ōm, *of three*, Av. θryąm, Grk. τριῶν, Lat. trium; I. E. sūn(u)w-ōm, Grk. γούνων for *γόνϝων, Lat. manuum; I. E. s̥nt-ōm, Skt. satām, Grk. ὄντων.

260. The Dative-Ablative was formed with -bh- or -m-, but with what vowel we have no means of knowing. (Cf. these cases in the singular and the dual.) The Sanskrit has -bhyas, Latin, -bos, -bus; Lithuanian, -m(u)s; *e. g.*, Skt. açvābhyas, vr̥kebhyas, sūnubhyas, Lat. manubus (-ibus), Lith. sūnúms, Skt. mātr̥bhyas.

261. The original ending of the Locative plural is not clear, though the Aryan and the Balto-Slavonic point to an Indo-European -su, while the Greek has -σι; *e. g.*, I. E. *eḱwā-su, Skt. açvāsu, Grk. Ἀθήνησι;

I. E. *wl̥qoi-su, Skt. vr̥keṣu, Grk. λύκοισι; Skt. triṣu, Grk. τρισί; I. E. *sūnu-su, Skt. sūnusu, Grk. πήχεσι; I. E. *sn̥t-su, Skt. satsu, Grk. οὖσι.

262. The Instrumental ended in -bhis and -mīs, except in the o-declension, which had -ōis; *e. g.*, I. E. *wl̥qōis, Skt. vrkāis (Ved. vr̥kebhis), Grk. λύκοις, Lat. lupīs; Skt. açvābhis; I. E. *owi-bhis, Skt. avibhiṣ; I. E. *sūnu-bhis, Skt. sūnubhis; I. E. *mātr̥-bhis, Skt. mātr̥bhiṣ.

b. Neuters.

263. For neuter nouns the endings were the same as for masculines and feminines, except in the Nominative-Vocative and the Accusative. There were no neuters in the ā-declension. In the singular of o-stems the accusative neuter (like the masculine) ended in -m, and the nominative was the same; *e. g.*, I E. *jugo-m, *yoke*, Skt. yugam, Grk. ζυγόν, Lat. iugum. In other declensions the bare stem occurred as nominative-accusative, as Skt. suci, *rein*, Grk. ἴδρι; Skt. madhu, *honey*, Grk. μέθυ; Skt. udhar, *udder*, Grk. οὖθαρ, Lat. uber; I. E. *menos, Skt. manas, Grk. μένος.

264. In the dual the Nominative-Vocative-Accusative of o-stems ended in -oi; other stems seem to have had -ī; *e. g.*, I. E. *jugoi, Skt. yuge; I. E. *sn̥t-ī, Skt. satī. So also Av. vīsaiti, Grk. Boeot. ϝίκατι, Lat. vigintī.

265. In the plural these three cases of o-stems had the ending -ā, i-stems had -ī, u-stems had -ū, and consonant stems had ə (from which Skt. -i); *e. g.*, I. E. *jug-ā, Ved. yugā, Grk. ζυγά, Lat. iuga, Goth. juka; Ved. trī, Lat. trī-ginta; Ved. madhū; I. E. *sent-ə, *sont-ə, Skt. sānti (Ved.), Grk. ὄντα.

The -ā of the neuter plural is the same as the ending of the nominative singular of the ā-declension, for this plural was originally only a collective noun in the singular. If the -ə of consonant stems is to be regarded as the low grade of ā, and the -ī and -ū of the i- and u-stems as resulting from the contraction of the stem vowel with -ə, then all these plural forms would be traceable to the same collective singular.

2. Case Endings of the Ancient Persian.

266. Of the eight cases belonging to the Indo-European, the Ancient Persian preserved seven regularly, the dative having been lost, except in certain pronouns, and its functions taken over by the genitive. With the loss of the final explosive (229) of the ablative singular ending of a-stems (I. E. -ōd : -ēd), this case and the instrumental singular came to be written alike, while in ā-stems and consonant stems the ablative and the genitive were the same. Very few dual forms occur, and these only in the nominative-accusative and ablative-instrumental cases.

a. Masculines and Feminines.

Singular.

267. As in Indo-European, the Nominative of nouns in -ā was the bare stem; *e. g.*, Anc. Pers. hainā, *army*, taumā, *family*. Cf. I. E. *ekwā. So also in n-, r-, s-, and š-stems, as xšaθ^rapāvā (stem xšaθ^rapāvan), brātā (stem brātar), vi^{n}dafarnā (stem -nah), haxāmaniš. a-stems representing Indo-European o-stems, with Aryan nominative -as (93), losing the -s (192) present also the bare stem as nominative; as kāra (for *kārah < *kāras). i- and u-stems have their nominative in

š, the Aryan alteration of Indo-European s following these vowels (190); as šiyātiš, *welfare*, kūruš, *Cyrus*. The Ancient Persian has also extended the š-suffix, by analogy, to the ī-stems (< I. E. yē-stems), as bāxtriš, stem bāxtrī, *Bactria*.

268. The Vocative had no ending. An example from an a-stem (I. E. o-stem) occurs in martiyā, *man* (-ā for -a < I. E. -e, 61).

269. In the Accusative the Indo-European -m and -m̥ appear as -m and -am, respectively; thus, hainām (< I. E. -ā-m), kāram (< I. E. -o-m), šiyātim (< I. E. -i-m), magum (< I. E. -u-m), harauvatim (ī-stem), asmānam (< I. E. -n-m̥), framātāram (< I. E. -r-m̥), nāham (< I. E. -s-m̥), viθam (< I. E. -m̥).

270. The Indo-European -es, -os, -s of the Genitive singular, represented in Aryan by -as, -s (93, 190), lost the final -s in Ancient Persian (192), but in i- and u-stems Aryan š from Indo-European s (190) remained as the ending (193); *e. g.*, piθ^{r}a (for -ah < Iran. -as), θarda (for -ah < Iran. -as), fravartaiš (< Ar. -ai-š), kūrauš (< Ar. -au-š).

Nouns of the ā-declension had a genitive in -āyā, an Aryan extension from the locative (283. a); *e. g.*, taumāyā (< Ar. -āyās). The Indo-European ending -syo, borrowed from the pronominal declension by o-stems (250), appears in Ancient Persian in the genitive of a-stems, which have -hy^{a}a, -hya; *e. g.*, martiyahyā, garmapadahya. ī-stems had -yā (< I. E. -yēs, -yās), as būmiyā.

271. The Ablative pronominal ending borrowed by o-stems, I. E. -ōd : -ēd, became in Aryan -ād (90, 94), and this appears in the Ancient Persian ending -ā from a-stems (229), as pārsā. The ablative of other

than ā-stems ended like the genitive, as in Indo-European.

272. The Locative of ā-, a-, and consonant-stems, like the Indo-European, added -i, but this ending was often increased by the post-positive particle -ā (588); *e. g.*, pārsaiy (66. 1), taumāyā, dastayā, v^{i}θiyā, māhyā. The i- and u-stems which in Indo-European had in the locative -ē(i) and -ēu (probably also -ei and -eu) show these endings in the Ancient Persian -ā, -au; *e. g.*, ufraštā, *with severe punishment;* bābirauv (66. 1), in *Babylon.* The locative of ī-stems had -yā < I. E. -yē(i) or < Ar. -yāi + ā (287. b).

273. In the Instrumental the long vowel that characterized the Indo-European instrumental of ā-, o-, i-, and u-stems appears also in Ancient Persian a-stems, and the same ending is extended to consonant stems; *e. g.*, karā, viθā.

Dual.

274. The Nominative-Accusative dual of a-stems ended in -ā (< I. E. -ō), as gaušā.

275. The Ablative-Instrumental showed the ending -biyā, the same b- (bh-) element as belonged to the Indo-European; *e. g.*, dastaibiyā u(tā) pādaibiyā, NRb. 41, *with both hands and feet.*

Plural.

276. The Nominative plural of ā- and a- (I. E. o-) stems ended in -ā (for -ās, 192, < I. E. -ās, -ōs); *e. g.*, aniyā (dahyāva), martiyā. a-stems have also -āha < Ar. -āsas, as in bagāha (515); u-stems have -a (for -as, 192, < I. E. -es); as dahyāva.

277. The Accusative plural of ā-stems ends in -ā. The Indo-European accusative ending in this class of

nouns, as we have seen (258), was probably -āns, and the Aryan -ās, Ancient Persian -ā, is probably an extension of the nominative to the accusative (Tolman *Cun. Sup.*, §106). Brugmann KVG. 480, 2, argues for -ās as the original accusative ending, but this can hardly explain the Greek (Cret.) -ανς, (Lesb.) -αις. And the Attic τιμᾱ́ς shows -ανς changed to -ᾱς after the conversion of primitive Greek ᾱ to Ionic-Attic η.

The Indo-European **o**-stems, as has been said (258), ended in **-ons**, which would give the Aryan **-ans**. The Ancient Persian has -ā, the long vowel here, as in Sanskrit **-ān**, being used after the analogy of the nominative, *i. e.*, the relation of nominative to accusative in the singular **-a** : **-am** was thus preserved in the plural -ā(s) : -ā(n).

u-stems had originally **-uns**, as Skt. **çatrūn**, Grk. (Cret.) υἰύνς. **dahyāva** is a re-formation (286. b, end).

No examples of the accusative plural of other stems occur.

278. The Genitive plural in Aryan, instead of having simply **-ām** after the **-ōm** of the Indo-European, adopted as an ending for other nouns the **-nām** which appeared in **n**-stems; *e. g.*, **paruvzanānām** (stem in -ā), **bagānām** (stem in **-a**), **dahyūnām** (stem in **-u**). The use of the ending **-nām** seems to have begun in the ā-declension where the genitive plural in **-ām** was likely to be confused with the accusative singular, and where not only the nominative singular had the same ending as that of **n**-stems, -ā, but in Aryan several other cases were similar in formation to those of **n**-stems. And from the ā-stems the new ending was taken over by other nouns.

279. The Locative followed the Indo-European -s-u, to which was added the postpositive particle -ā, forming -uvā after -ā- (192) and -šuva after -ai- and -u- (193); *e. g.*, aniyāuvā (fem.), mādaišuvā (< I. E. -oi-su, 261), dahyušuvā (I. E. -u-su).

280. The Instrumental of the Ancient Persian ends in -biš (< Ar. -bhiš), as raucabiš. This ending was taken over also by a-stems, as in martiyaibiš, instead of the Aryan -āiš which followed the Indo-European -ōis.

Neuters.

281. The Nominative-Accusative singular of neuter a-stems ended in -m, as in Indo-European; *e. g.*, xšaθ^{r}am (< I. E. -o-m). Other declensions follow the Indo-European in having the bare stem for the nominative-accusative; as, nāma (< I. E. -mn̥), rauta (< I. E. -s), hadiš (š-stem).

282. The Nominative-Accusative plural follows the Indo-European and ends in -ā, as hamaranā.

3. Paradigms of Declension.

a. Vowel-Stems.

283. Class I. ā-stems (I. E. ā-stems), fem.

taumā, *family;* aθurā, *Assyria;* aniyā (adj.), *other;* paru(v)zanā (adj.), *having many kinds of people.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-ā	taumā	açvā	daēnā
A.	-ām	taumām	açvām	daēnąm
G.	-ās	taumāyā	açvāyās	daēnayå
Ab.	-ās	taumāyā	açvāyās	daēnayāt̰
L.	-āi	aθurāyā	açvāyām	grīvaya

Pl.	I. E.	Anc. Pers.	Skt.	Av.
N.	-ās	anịyā	açvās	daēnā̊
A.	-āns	aniyā	açvās	daēnā̊s-cā
G.	-ām	paruvzanānām	açvānām	gaēθanąm
L.	-āsu	aniyāuvā	açvāsu	gaeθāhū
				gaēθāhva

(a) The genitive and ablative singular ending -āyā is a primitive Aryan extension from the loc. on the analogy of ī- (I. E. yē-) stems. In the latter the loc. with postpositive -ā ended in -yā, the gen. in -yās, and the dat. in -yāi; in the ā-declension the loc. with postpositive -ā ended in -āyā, and the gen. and dat. were accordingly made to end in -āyās, -āyāi, respectively. (But cf. 287. b).

284. Class II. a-stems (I. E. o-stems), masc. and neut.

martiya, m., *man;* pārsa, m., *Persian*, *Persia;* dasta, m., *hand;* karša, m., *karša-weight;* gauša, m., *ear;* baga, m., *god;* māda, m. (adj.), *Median;* hamarana, n., *battle.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-os	martiya	vr̥kas	ahurō
V.	-e	martiyā	vr̥ka	ahura (-ā)
A.	-om	martiyam	vr̥kam	ahurəm
G.	-osyo	martiyahyā	vr̥kasya	ahurahyā
Ab.	-ōd (-ēd)	pārsā	vr̥kād	akāt̰
L.	-oi, -ei	pārsaiy	vr̥ke	aspaē-ca
		dastayā		zastaya
I.	-ō̆ (-m-, bh-)	parsā	vr̥kā (*Ved.*)	ahurā
Du.				
N. A.	-ōu -ō	(N.) karšā	vr̥kāu,	zasta (-ō)
		(A.) gaušā	vr̥kā (*Ved.*)	
Ab.-I.	-bh-	dastaibiyā	vr̥kābhyām	aspaē[i]bya (*dat.*)

Pl.	I. E.	Anc. Pers.	Skt.	Av.
N.	-ōs	martiyā	vr̥kās	aspa
		bagāha	açvāsas (*Ved.*)	aspåṅhō
A.	-ōns	martiyā	vr̥kān	mašyąs-cā
G.	-ōm	martiyānām	vr̥kānām	aspanąm
			carathām (*Ved.*)	
L.	-oi-su (-si)	mādaišuvā	vr̥keṣu	aspaēšu
I.	-ōis (-bh-,-m-)	martiyaibiš	vr̥kāiṣ	zastāiš
			vr̥kebhis (*Ved.*)	
Neut.				
Sg.				
N. A.	-om	hamaranam	yugam	šyaoθ^a^nəm
Pl.				
N. A.	-ā	hamaranā	yugā (*Ved.*) yugāni	šyaoθ^a^nā

(a) The -ā of the voc. sg. martiyā is *scriptio plena* for -a (61). So, also, the -hyā of the gen. sg. where the I. E. -syo is more accurately represented in a form like garmapadahya.

(b) In the Aryan gen. pl. not only did the a-stems follow the ā-stems in taking over the ending -nām (278), but, further, on the analogy of the ā-declension, the vowel of the penult of this gen. form was made long.

285. Class III. i-stems (I. E. i-stems), masc. and fem.

fravarti, m., *Phraortes;* ufrašti, f., *severe punishment.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-is	fravartiš	agnis	paitiš

Sg.	I. E.	Anc. Pers.	Skt.	Av.
A.	-im	fravartim	agnim	paitīm
G.	-eis, -ois	fravartaiš	agnes	patōiš
L.	-ē(i)	ufraštā	agnā (*Ved.*)	vīdātā

(a) -āiš in gen. sg. occurs in cišpāiš, *of Teispes*, *scriptio plena* for -aiš (cf. 61), thus differentiating the form from the nom.

(b) dipi, f., *inscription*, forms its loc. dipiyā after the analogy of ī-stems (287).

(c) In the compound haxāmaniš the first element haxā-, *friend*, is the nom. sg. of an i-stem varying from the regular formation in -s, just as forms in -ā are made from i-stems in other Aryan languages; *e. g.*, Skt. sakhi, *friend*, nom. sg. sakhā; YAv. haxi, nom. sg. haxā. This ending may be derived from I. E. -ō(i) or -ē(i), as are the Greek nominatives in -ω, as πειθώ, gen. πειθοῦς <*-oy-os.

286. Class IV. u-stems (I. E. u-stems), masc. and fem.

bābiru, m., *Babylon;* kūru, m., *Cyrus;* gāθu, m., *place;* dahyu, f., *province.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-us	bābiruš	çatruṣ	vaṅhuš
		dahyāuš		bāzāuš
A.	-um	bābirum	çatrum	vohūm
		dahyāum		pərᵊsāum
G.	-eus, -ous	kūrauš	çatros	vaṅhəuš
Ab.	-eus, -ous	bābirauš	çatros	
L.	-ēu (-eu)	bābirauv	çatrāu	vaṅhāu
		dahyauvā		
		gaθavā		

Pl.	I. E.	Anc. Pers.	Skt.	Av.
N.	-ewes	dahyāva	çatravas	vaṅhavō
A.	-uns	dahyāva	çatrūn	vaṅhūš-cā
G.	-(u)wōm	dahyūnām	çatrūṇām	vohunąm
L.	-usu	dahyušuvā	çatruṣu	vaṅhušu

(a) In the loc. sg. bābirauv the -v is added by way of protection to the final -au (66. 1), while in gaθavā with postpositive -ā, the second element of the diphthong has been changed to the semivowel.

(b) dahyu, *province*, has certain of its forms from a diphthongal stem in -āu; *i. e.*, the extended grade of the u-vowel (121). The long diphthong of the original stem-ending in the nom. sg. has been mentioned above (247). After the analogy of the nom. is the re-formation in -āum as an acc. But alongside this acc. in -āum occurs the form DAHyum in Dar. Pers. a. 23, b. 24. With the same long diphthong is formed the nom. pl. dahyāva, which then is taken over to serve also as acc. pl.

(c) From the Aryan period, as has been mentioned above (278), the gen. pl. of vowel stems had the ending -nām, borrowed from the declension of n-stems, first for ā-stems, then for a-stems, where, by analogy, the final stem vowel was made long (284. b). This same influence, then, seems to have determined the quantity of the corresponding vowel in other gen. pl. forms; hence dahyūnām.

287. Class V. ī-stems (I. E. yē-stems), fem.
bāxtrī, f., *Bactria;* būmī, f., *earth.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-ī(-iyə, -yə)	bāxtriš	bṛhatī	vaṅuhī
A.	-(i)yēm	būmim	bṛhatīm	vaṅuhīm(-im)

Sg.	I. E.	Anc. Pers.	Skt.	Av.
G.	-yēs	**būmiyā**	**br̥hatyās**	**vaṅhuyā̊**
L.	-yē(i)	**bāxtriyā**	**br̥hatyām**	**pər^{ə}θwe**

(a) The nom. in **-iš**, instead of **-ī**, is a re-formation after the i-stems, Class III. On the same analogy the acc. appears in **-im** instead of the Aryan **-īm**.

(b) For the form of the loc., as **bāxtriyā**, two explanations have been offered: Tolman *Cun. Sup.*, §101, takes it directly from the I. E. -(i)yē, while Brugmann KVG 467. 1, *Anm.* 1, thinks it represents a primitive Aryan shortening of -yāy-ā(m) to -yā(m).

b. Consonant Stems.

288. Class VI. Dental stems.

A. t-stems (I. E. t-stems).

napāt, m., *grandson.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-ts	**napā**	**napāt** (*Ved.*)	**napā̊**

(a) This nom. **napā** is an Iranian re-formation on the analogy of Class IX. A. (291).

(b) If **rauta** in the phrase **hacā pirāva nāma rauta**, Dar. Sz. c. 9, is to be taken in the usual construction with **hacā**, we have in it a gen.-abl. form of a t-stem. See Tolman *Lex.* 111, *s. v.* **pirāva**.

B. θ-stems (spirant, I. E. k̂-stems).

viθ, f., *court.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
A.	-m̥	**viθam**	**viçam**	**vīsəm**
L.	-i	**viθiyā**	**viçi**	**vīsi, vīsya**
I.	-a (?)	**v^{i}θā**	**viçā**	**vīsa**

(a) In **v^{i}θ^{a}b^{a}iš^{a}cā** of Bh. 1. 65 we probably have an

instance of the instr. pl. of viθ, viθbiš; cf. Av. vīz'bīš. Gray suggests viθabiš as instr. pl. n. See discussion of these forms, Tolman *Lex.* 125.

C. d-stems (I. E. d-stems).

patipadam, ni-padiy, -pad-, *foot;* θard, f., *year.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
A.	-m̥	patipadam	pādam	pāδəm
G.	-os, -es	θarda	padas	paθō
L.	-i	nipadiy	padi	paiθī

(a) The acc. form patipadam may be classed here, according to Bthl. 392, or it may be the neuter of a thematic adjective, as Tolman *Lex.* 108.

289. Class VII. Labial stems.

p-stems (I. E. p-stems).

xšap, f., *night.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
G.	-os, -es	xšapa	kṣapas	apas-ca

(a) The form xšapa, occurring only in Bh. 1. 20, is classed by Tolman as gen., by others as acc. on the analogy of the neuter rauca in the same phrase. (See Tolman *Lex.* 83.)

(b) The root āp-, f., *water*, originally belonging to this class, has been transferred to the ī-declension (Class V., 287). The form āpišim, Bh. 1. 95-96, once taken as āpi (loc. sg.) + šim (Bthl. 389), is to be regarded as shortened from āpiš-šim, āpiš being nom. sg. (Tolman *Lex.* 64). The loc. āpiyā may belong to Class V. (287) equally as well as to p-stems (as -i + postpositive -ā).

290. Class VIII. Liquid stems.

A. n-stems (I. E. n-stems).

xšaθ^r^apāvan, m., *satrap;* asman, m., *stone;* nāman, n., *name.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-ēn, -ōn -ē, -ō	xšaθ^r^apāvā	rājā	urvā
A.	-en-m̥, -on-m̥	asmānam	rājānam	asmanəm-ca
Neut. Sg.				
A.	-mn̥	nāma, nāmā	nāma	nāma

(a) The lengthening of the stem vowel in the nom. has been mentioned above (247, 267).

(b) The acc. asmānam shows the extended grade of the formative suffix (121), probably on the analogy of the long vowel of the suffix in the nom. But since -en alternated with -on in the Indo-European declension, some would hold that this -ā- was the Aryan development of I. E. -o- in an open syllable (93, end).

(c) The form nāmā occurs with feminine nouns, and, as Tolman suggests, may be *scriptio plena* influenced by the feminine. Other explanations—that it is part of a possessive compound with feminine formation, that it comes from original *nōmn̥, that it is a loc. sg., etc.—are mentioned in Tolman *Lex.* 105.

(d) [u]c^a^š^a^m^a^ in Bh. 2. 89 (and 75) appears to be an acc. of this class, used in the sense of *the two eyes* (Tolman *Lex.* 75).

(e) uzmayā cited by Bthl. (402) as loc. sg. of an m-stem, is the loc. of a thematic adjective u-zm-a, from *zam, *earth.*

B. r-stems (I. E. r-stems) -tar.

brātar, m., *brother;* framātar, m., *master;* pitar, m., *father.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-tēr, -tōr -tē, -tō	brātā	pitā	dātā
A.	-ter-m̥, -tor-m̥	framātāram	pitaram	dātārəm
G.	-tr-os, -tr-es	piθ^{r}a	pitur	dāθrō

(a) The nom. ending -tēr, -tōr, was adopted by the Greek, Latin, and Germanic languages, while -tē, -tō survived in the -tā of the Aryan branch.

(b) The -ā- of the penult in framātāram is to be explained in the same way as the extended grade of the suffix in the acc. of n-stems; see 290. A. b.

(c) θ^{r} of piθ^{r}a represents Aryan -tr-, the low grade of the stem; see 165.

(d) *duvar, *door*, was transferred to the a-declension; *e. g.*, duvarayā, loc. + postpos. -ā, Tolman *Lex.* 102.

291. Class IX. Spirant stems.

A. Radical stems in I. E. s, Anc. Pers. h, masc. aura-mazdāh, m., *Ahura Mazda;* nāh, m., *nose;* māh, m., *month.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	-s	aura-mazdā	sudās	mazdā̊
A.	-s-m̥	nāham aura-mazdām	sudāsam	mazdąm
G.	-s-os, -s-es	aura-mazdāha	sudāsas	mazdā̊
L.	-s-i	māhyā	sudāsi	yāhi

(a) The acc. auramazdām is shortened from auramazdāham (< Ar. -sam, 192).

(b) The gen. ending -āha appears as -āhā in many places, but not in the Behistan inscriptions (61).

B. Derivative stems in I. E. -es, -os, Anc. Pers. -ah, neut.

raucah, n., *day;* **drayah**, n., *sea.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N. A.	-os	rauca	manas	manō
L.	-es-i	drayahyā	manasi	manahi-cā
Pl.				
I.	-ez-bhis	raucabiš	manobhis	manəbīš

(a) **viⁿdafarnah**, m., *Intaphernes* (= ***viⁿda(t)** + ***farnah**, *finding glory*) has in the nom. **viⁿdafarnā** the extended grade of its formative suffix.

C. **-iš**-stems (I. E. **-əs**-stems).

hadiš, n., *dwelling-place.*

Sg.	I. E.	Anc. Pers.	Skt.	Av.
A.	-əs	hadiš	haviṣ	narᵊpīš

c. Mixed Declension.

292. Class X. **i-** with **n**-stems.

xšayāršan, m., *Xerxes.*

Sg.	Anc. Pers.	Skt.	Av.
N.	xšayāršā	panthās	pantå, panta
A.	xšayāršām	panthām (*Ved.*) panthānam	pantąm
G.	xšayāršahyā	pathas	

(a) The second member of this compound (236. 1), **-aršan**, is an **n**-stem (cf. Grk. ἄρσην) and the nom. sg. in **-ā** (for Ar. ***-aršās**), acc. **-ām**, may be explained as resulting from the early interchange of **i-** and **n**-stems. Cf. Skt. nom. sg. **panthās** (with sigmatic nom. ending) and instr. pl. **pathibhis**. Corresponding to the Skt. **sakhā**, we should expect an Aryan ***panthā**, which is seen in Av. **panta** beside **pantå** (< **-ās**). So it happened that in Aryan times the acc. sg. became a reformation; *e. g.*, Skt. **panthām** (*Ved.*), Av. **pantąm**.

CHAPTER X.

ADJECTIVES.

1. Declension.

293. THE declension of adjectives is essentially the same as that of nouns. Early in the Indo-European period the stem of the adjective without ending may have been used as a modifier of any and all forms of the noun, just as adjective stems without inflection enter into compounds. But after nouns of the ā-class had come to be regarded as feminine, those of the o-class as masculine, and nouns were being formed with the suffixes of these classes for different genders (244), it was natural that the modifying adjectives should assume different forms in agreement with their nouns. Hence arose the declension of adjectives with masc. -os, fem. -ā, neut. -om (263). That adjectives of these endings should modify nouns of other classes than those in -o and -ā, was a later development. Other adjectives followed the inflectional forms of nouns of other classes, and then, becoming fixed in their declension, modified all kinds of nouns, though the feminine of these other classes went regularly back to the -yē declension of nouns (287).

294. Most adjectives of the Ancient Persian are of the first class mentioned above, having masc. -a, fem. -ā, neut. -am (< I. E. -os, -ā, -om), though some examples occur of the i-, u-, and consonant-declensions; *e. g.*, ušabāri, *borne by camels;* paru, *many;* hamātar, *having the same mother.*

295. From the Indo-European period certain adjectives were inflected wholly or in part according to

the pronominal declension. Of this class were the words meaning *one*, *all*, *other*, and *same*. But of such words in Ancient Persian only **aniya**, *other*, shows a distinctively pronominal form, in the nom.-acc. neut. sg. **aniyašciy** (for ***aniyat-ciy**; cf. Skt. **anyat**), while **visa**, *all*, follows the nominal declension and has **visam** in the neuter.

(a) For the nom. pl. **aniyāḥa**, see 515.

2. Comparison.

296. The Indo-European comparative was formed by the addition of either the primary suffix **-yes-**, appearing with vowel gradation as **-yos-**, **-yōs-**, and **-is-**, or the secondary suffixes **-ero-**, **-tero-**.

297. The **-yes-** suffix appeared also as **-ī̆yes**, **-ī̆yos**, as is seen in Skt. **svādīyas**, *sweeter*, Grk. ἡδίω (< *σϝᾱδῑyοσα), Lat. **suavior**. Beside Skt. **mahīyas**, *greater*, is Av. **mazyah**, Lat. **maior** (< ***magyos**). The I. E. **-is-** appears in the Lat. **magis**, Osc. **mais**, Goth. **mais**.

298. The **-ero-**, **-tero-** suffixes originated from local adverbs; *e. g.*, I. E. ***uperos**, *over*, ***n̥dheros**, *under*. Skt. **upara**, **adhara**, Lat. **superus**, **inferus**; so also Grk. δεξίτερος, ἀρίστερος, Lat. **dexter**, **sinister**, etc. From thus denoting contrast of location, the suffix came to be used for other contrasted ideas, then particularly for the greater degree of a quality belonging to an object in contrast with other objects.

299. Superlative forms developed later than comparatives and were made by adding suffixes belonging properly to ordinal numerals; *e. g.*, **-to-**, which appears in I. E. **dek̂m̥-to-s**, *tenth*, Grk. δέκατος, and **-m̥mo-**, **-tm̥mo-**, as is seen in Skt. **daçama**, Lat. **decimus**;

I. E. *septm̥mos, Skt. saptama, Grk. ἕβδομος (< *ἕβδμος), Lat. septimus.

300. The suffix -to- was added to the low grade -is- of the -yes- : -yos comparative suffix; hence adjectives with this comparative had regularly their superlative in -isto-, *e. g.*, Skt. svādiṣtha, *sweetest*, Grk. ἥδιστος. With the -m̥mo-, -tm̥mo- suffixes, are I. E. *upm̥mos, *uppermost*, Skt. upama, Lat. summus (< *sup-mos); I. E. *entm̥mos, *innermost*, Skt. antama, Lat. intimus.

301. Of the comparative suffixes given above, the Ancient Persian shows -yas-, < I. E. -yes-, in vahyah (cf. vahyaz-dāta), *better*, from *va(h)u, *good*; and -ara-, -tara-, < I. E. -ero-, -tero-, in the neut. sg. adverbial forms aparam, *afterwards*, apataram, *elsewhere*—both comparative forms from apa-, *away*.

302. Of superlative suffixes, the Ancient Persian has examples of both -išta-, < I. E. -isto-, and -tama- < I. E. -tm̥mo-; as, maθišta, *greatest*, from *maθ (YAv. mas); duvaištam (adv.), *very long* (acc. neut. sg. of *duvaišta; cf. duvitā-paranam, *long before*, Tolman *Lex.* 102); fratama, *foremost*, from fra-, *forth*.

303. The comparative and superlative forms then appear as follows:

	I. E.	Anc. Pers.	Skt.	Av.
Compar.	-yes-	vahyah	vasyas	vahyah
	-ero-	aparam	prataram	fratara
Superl.	-is-to-	maθišta	mahiṣtha	vahišta
	-tm̥mo-	fratama	purutama	pourutəma

3. Numerals.

304. *Cardinals.* The Indo-European had several stems signifying *one*, varying somewhat in the shade

of meaning; as, I. E. *oinos, *one*, Grk. οἴνη, *ace;* I. E. *oiwos, Skt. eva, *only*, Grk. οἶος, *alone*, Cypr. οἶϝος; I. E. *sem-:*som-:*sm-,*sm̥-, *one*, *the same.* Grk. εἷς, Cret. ἕνς < *σεμς, Lat. semper; Skt. samas, *same*, Grk. ὅμος; Skt. sa-kr̥t, *once*, Grk. ἅμα; Grk. μία < *σμία. Of these stems, *oiwo- appears in Anc. Pers. aiva, *one*, and *sem- in Anc. Pers. hama, *same*, as probably also with vowel gradation (see Tolman *Lex.* 133) in ha-mātar, *having the same mother.* No other cardinal forms appear in the inscriptions, since everywhere for cardinal numerals above *one* the sign and not the word is used, as is also done even for *one* in the Behistan Inscriptions.

305. *Ordinals.* The Indo-European ordinal numerals were regularly formed from the cardinal stem by the addition of the suffixes -to- and -m̥mo-, mentioned above in the discussion of the superlative (299); *e.g.*, I. E. *s(w)ek̂tos, *sixth*, Skt. ṣaṣṭha, Grk. ἕκτος, Lat. sextus, Goth. saihsta; I. E. *dek̂m̥mos, *tenth*, Skt. daçama, Lat. decimus (beside I. E. *dek̂m̥tos, Grk. δέκατος). The Ancient Persian keeps the suffix -m̥mo- in navama, *ninth*, Skt. navama.

The I. E. *d(u)wō(u), *two*, is represented in composition by *dwi-, which appears in the Anc. Pers. duvitīya, *second*, from Aryan *dwitīya; so Skt. dvitīya, Av. daibitya.

In like manner from I. E. *trei, *tri, *three*, the Ancient Persian has θ^ritīya (165), *third*, Skt. tr̥tīya, Av. θritya, Grk. τρίτος, Lat. tertius.

No other certain examples of ordinals are found in the inscriptions.

CHAPTER XI.

The Declension of Pronouns.

306. In no other class of words do the Indo-European languages present such a variety of forms as in the Pronouns. From what these languages have preserved, it is impossible to say either how many pronouns the parent tongue had or how many forms existed of the pronouns which we know. As compared with nouns, they show differences of both stem and ending, and the interchange of nominal and pronominal formations adds to the confusion. Furthermore, different stems appear in what should be a single declension, as Skt. **aham**, *I*, **mām**, *me;* Anc. Pers. **adam**, *I*, **vayam**, *we;* Grk. ἐγώ, ἡμεῖς, Lat. **ego**, **nos**, etc. Sometimes the form was extended by the insertion of an element between stem and ending, as **-sm-** in Skt. **tasmād**, or a form was changed by the addition of an enclitic particle, which in some instances became a part of the word, as Skt. **aha-m**, **id-am**; Grk. ἐγώ-ν, οὑτοσ-ί; Lat. **hi-c**, **id-em**. Again, it seems that in Indo-European times there existed side by side accented and unaccented forms, of which from the prehistoric period in certain of the derived languages the accented form was generalized, in others the unaccented, and beside these, again, there developed new unaccented and accented forms. The Sanskrit preserves both accented and unaccented forms, *e. g.*, acc. **asmān**, *us*, **yuṣmān**, *you*, beside the enclitic **-nas** and **-vas**; whereas the Latin has generalized the unaccented forms and has only **nōs** and **vōs**.

307. The following classification of pronouns is

usually made: the Personal, of the same group with which are the Possessive and the Reflexive, and, of another group, the Demonstrative, the Interrogative, the Relative, and the Indefinite. What is sometimes called the personal pronoun of the third person may be classed with the demonstratives. In all classes except the personal occur distinctive gender forms.

1. Personal Pronouns.

a. First Person.

308. *Singular.* The Nominative of this pronoun in Indo-European seems to have had two stems, *eĝh and *eĝ, and to have been used with and without the suffix -m; thus I. E. *eĝhŏm gives Skt. aham, Av. azəm, Anc. Pers. adam (159); I. E. *eĝō gives Grk. ἐγώ, ἐγών, O. Lat. egō; I. E. *eĝo gives Lat. ego, Goth. ik.

309. The I. E. Accusative was *mē(m) beside *eme and *me, and these forms appear in Skt. mām, mā (encl.), GAv. mām, YAv. mąm, Anc. Pers. mām (occurring as enclitic in Bh. 1. 52), Grk. ἐμέ, μὲ, Lat. mē.

310. Of the I. E. Genitive forms, *mene, *eme, the former is preserved in YAv. mana, Anc. Pers. manā, and the latter perhaps in Skt. mama, which may be a re-formation for *ama on the analogy of Aryan *mana < I. E. *mene. *eme appears also in Grk. (Hom.) ἐμεῖο, Ion. ἐμέο, Att. ἐμοῦ, etc., from *ἐμεσyo and *ἐμεσο, taking over the ending from the genitive of the demonstrative (334). The Ancient Persian has -ā by *scriptio plena* (61).

311. The I. E. Ablative was *mĕd, as appears from the Skt. mad, GAv. mat, Anc. Pers. -ma (for *mad, 229), Lat. mē(d).

312. The Skt. Dative **mahyam** for **mahi-am** points to I. E. ***meĝhi**, as the Lat. **mihī** shows I. E. ***meĝhei**, ***meĝhoi**.

313. The I. E. Locative ***mei**, ***moi**, served in the derived languages not only as locative, but also as genitive and dative. Thus Skt. **may-i** (with loc. ending added), **mē** (gen. and dat.), Av. **mōi**, **mē** (gen. and dat.), Anc. Pers. **-maiy** (dat.-gen.), Grk. dat. ἐμοί, μοί, Lat. dat. **mī**.

314. The Instrumental would seem originally to have been ***mā** (cf. 2d pers. Skt. **tvā** of the Veda, and Av. **θwā**, 326), for which the classical Sanskrit **mayā** may have been formed from the acc. **mām** on the analogy of nouns of the ā-declension, or it may have been made from an extension of the stem (***meyo-**), as Lat. **mei** from **meus**.

Dual.

315. The origin of such dual forms as the Sanskrit Nominative-Accusative **āvām**, GAv. **əəāvā**, is not clear. The same stem occurs with dual endings in Skt. **āvābhyām**, **āvayos**. The Indo-European unaccented ***nō(u)**, appearing in Skt. acc.-dat.-gen. **nāu** and the Grk. nom.-acc. νώ, is from the plural stem ***nŏ**(317). But no dual forms remain in Ancient Persian.

Plural.

316. The I. E. Nominative was ***wei**, from which are Skt. **vay-am**, Av. **vaēm** (for ***vayəm**), Anc. Pers. **vay-am**, Goth. **wei-s**.

317. The Accusative of the Indo-European was **nŏs**, as appears in Skt. **nas** (encl.), GAv. **nå** (encl.),

Lat. nōs. From the low grade *n̥s are Goth. uns, Skt. as-mān, GAv. əhmā, YAv. ahmā, Grk. *ἄσμες > ἄμμες (Hom. Lesb.) transferred to the nominative.

318. This low grade of the stem with the -sme-element (as in asmān, ἄμμες above), I. E. *n̥s-sme, was used in the formation of the Aryan genitive plural with the addition of the Aryan suffix -āka. Hence Skt. asmākam, YAv. ahmākəm, Anc. Pers. amāxam (< Ir. *ahmāxam).

319. The same stem is seen in the Sanskrit Ablative asmad, GAv. ahmat̰, Skt. dat. asmabhyam, GAv. ahmaibyā, Skt. loc. asmāsu, instr. asmābhis,—which cases do not occur in Ancient Persian.

320. The Declension, then, of the Personal Pronoun of the first person, as far as it occurs in Ancient Persian, is as follows:

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	*eĝhom	adam	aham	azəm
A.	*mēm	mām	mām	mąm
G.	*mene, *eme	manā	[mama]	mana
L.	*mei, *moi	maiy (gen.-dat.)	mayi	mōi (gen.-dat.)
Ab.	*med	-ma	mad	mat̰
Pl.				
N.	*wei	vayam	vayam	vaēm
G.	*n̥s-sme (+ Ar. -āka)	amāxam	asmākam	ahmākəm

b. Second Person.

Singular.

321. The Nominative of the second person in I. E. was *tu or *tū, Skt. tvam (*tu-am), Av. tū, GAv.

tvəm, Anc. Pers. tuvam, Grk. Dor. τύ, Att. σύ, Lat. tū. The -am in Skt. tvam, Anc. Pers. tuvam, may be the I. E. particle -em, -om, or these forms may be made after the analogy of Skt. aham, Anc. Pers. adam.

322. The original Accusative had *twē(m), *tē beside *twe, *te. So Skt. tvām, tvā (encl.), Av. θwąm, θwā (encl.), Anc. Pers. θuvām (for θvām; see 164), Grk. Dor. τέ, Att. σέ (< *τϝε), Lat. tē.

323. The I. E. Genitive *tewe appears in Skt. tava, YAv. tava, GAv. tavā. As in the first person, the Ancient Persian uses as a genitive the locative -taiy (written also -tay), < I. E. *t(w)ei, *t(w)oi, which, like *mei, *moi (313), occur in the derived languages as locative, genitive, or dative; *e. g.*, Skt. tvay-i (with loc. ending added), tē (gen. dat.), Av. tōi, tē (gen. dat.), and the Grk. dat. Hom. τοί, Att. σοί (< *τϝοι).

324. The I. E. Ablative seems to have been *t(w)ĕ̄d, from which are Skt. tvad, Av. θwat̰, Lat. tē(d).

325. The original Dative was a formation in -bhi, as Skt. tubhyam, GAv. taibyā, Lat. tibī (from high-grade I. E. *tebhei, or *tebhoi).

326. The I. E. Instrumental was probably *twā, whence Skt. Ved. tvā, Av. θwā. The classical Sanskrit tvayā then would be explained in the same way as mayā above (314).

Dual.

327. The Sanskrit Nominative-Accusative Dual yu-vām is probably made from the I. E. *yū-, which appears in the plural; and from this are also yuvābhyām and yuvayos. So the enclitic acc.-gen.-

dat. **vām** is from the I. E. plural stem ***wŏ̄** (cf. 1st pers. **nāu**, 315) after **yuvām**. No dual cases occur in Ancient Persian.

Plural.

328. The I. E. Nominative was ***yūs**, GAv. **yūš**, Goth. **jūs**; Skt. **yūyam** after the analogy of the 1st pers. **vayam**.

329. The I. E. Accusative was ***wŏ̄s**, as appears in Skt. **vas** (encl.), GAv. **vå** (encl.), Lat. **vōs**, and (like the corresponding stem of the first person, 317) in its low grade it occurs in Skt. **yuṣmān**, Grk. *ὐσ-με, Lesb. ὔμμε.

This stem appears further in the Skt. abl. **yuṣmad**, Av. **yūšmat̰**, Skt. dat. **yuṣmabhyam**, GAv. **yūšmaibyā**, Skt. loc. **yuṣmāsu**, instr. **yuṣmābhis**—which cases do not occur in the Ancient Persian.

330. The Declension, then, of the Personal Pronoun of the second person, as far as it occurs in Ancient Persian, is as follows:

Sg.	I. E.	Anc. Pers.	Skt.	Av.
N.	*tu, *tū	tuvam	tvam	tū, tvəm
A.	*twēm	θuvām	tvām	θwąm
L.	*t(w)ei, *t(w)oi	-taiy (gen.-dat.)	tvayi (loc.) te (gen.-dat)	tōi, tē (gen.-dat.)

2. Demonstrative, Interrogative, and Relative Pronouns.

331. Of the Indo-European case endings for other pronouns than the personal, it will be necessary to give here only those which survive in the Demon-

strative, the Interrogative, and the Relative of the Ancient Persian.

(a) Masculine and Feminine.

Singular.

332. The Nominative, masc. and fem. occurred sometimes without ending; *e. g.*, I. E. masc. *so, fem. *sā, *this*, *that*, Skt. sa, sā, Grk. ὁ, ἡ, Dor. ἁ. Again this case had for the masc. the ending -s, as I. E. *yos, *who*, Skt. yas, Grk. ὅς; or sometimes the ending -oi (fem. -ai or -əi), as in Skt. ay-am, Lat. qui, O. Lat. qoi.

333. The Accusative of both masc. and fem. forms, like that of nouns, ends in -m (249); *e. g.*, I. E. *tom, *tām, *that*, Skt. tam, tām, Grk. τόν, τήν, Lat. istum, istām. As in nouns of the a- and the ā-declension, the Ancient Persian has masc. -am, fem. -ām.

334. The Genitive ended in (masc.) -syo, -so, (fem.) -syās, -sās; *e. g.*, I. E. masc. *tosyo, *toso or *teso, fem. *tesyās, *tesās; Skt. tasya, tasyās, Grk. Hom. τοῖο < *τοσyo, Att. τοῦ < *τοσο. The -syo ending appears in Ancient Persian as -hya (generally written -hyā, 61).

335. The Instrumental appears in Ancient Persian with the long vowel (-ā) which belonged to the same case of nouns (273); as anā from ana. Others regard anā as a + instr. ending -nā (cf. Skt. tena, Grk. ἵνα). Unless tyanā, Bh. 1. 23, be dittography (352. a; see Tolman *Lex.* 94) we should have in this form also an example of -na as instr. ending.

Plural.

336. The Nominative plural for the o-stems ended in -oi; as I. E. *toi, *these*, Skt. te, Grk. οἱ, τοί, Lat.

istī. As in nouns of the ā-class the nom. pl. fem. ended in -ās, as I. E. *tās, Skt. tās. Hence the Ancient Persian endings, regularly masc. -aiy, fem. -ā.

337. The original Accusative masc. and fem. had the same ending as nouns, -ns for vowel stems (258); *e. g.*, I. E. *tons, *tāns, Skt. tān, tās, Grk. Cret. τόνς, τάνς, Att. τούς, τᾱ́ς (277). The Ancient Persian varies from this in using the same form, that in -aiy, for both accusative and nominative masc., just as the fem. has the same ending -ā for these two cases (276, 277. But see 342. N.). So in Avestan, although the GAv. has acc. pl. anyəng, the YAv. uses anye as both nom. and acc.

338. The Genitive plural of the I. E. had as masc. ending -oi-sōm, fem. -ā-sōm or -ā-sām; *e. g.*, I. E. *toisōm, *tāsōm or *tāsām, Skt. teṣām, tāsām; Grk. Hom. τάων, Att. τῶν, Dor. τᾶν, Lat. istārum. The Ancient Persian has not only the gen. pl. masc. in -aišām (< I. E. -oisōm), but the fem. occurs with the same form in tyaišām.

(b) *Neuters.*

339. The Nominative-Accusative neuter singular of I. E. ended in -d or -m; *e. g.*, I. E. *tod, *yod, *qod, *qid; Skt. tad, yad, id-am; Grk. (with loss of final dental) τό, ὅ, τί, Lat. istud, quod, quid. With -m (cf. neut. nouns of the o-declension, 263) are Skt. kim, Av. cim, Grk. τοσοῦτον. With the loss of the final dental (229) the Ancient Persian neuter singular appears in -a. But in avaš-ciy the dental is assimilated to the following c (229. b).

340. The Nominative-Accusative neuter plural of I. E. had as ending for o-stems of pronouns the -ā,

which belonged to the same class of noun stems (265); *e. g.*, I. E. *tā, Skt. tā-ni, Ved. tā, Lat. ista. This ending in Ancient Persian remains -ā as in nouns.

3. Ancient Persian Demonstratives.

341. a, *this*. The Indo-European demonstrative stem *o-, *e-, fem. *ā-, appears in the Anc. Pers. a, Skt. a, Av. a, Grk. ε in ἐ-κεῖ, ἐ-κεῖνος, etc., εἰ (loc.), Lat. e-quidem. Only two cases occur in Ancient Persian, the gen. and the loc. sg. fem. The loc. sg. in Aryan shows an -sy- in the fem., which may have been taken over from the gen. Furthermore, these two cases in Ancient Persian must have been influenced by feminine noun endings of the ā-declension, since they show the same extension of ending in ahyāyā, occurring as both gen. and loc. (written also ahiyāyā in the gen.). See Tolman *Lex.* 59.

342. aita, *this*. I. E. *ei-to, formed of *ei+*to, YAv. aēta, Skt. eta, appears in Ancient Persian only in nom.-acc. sg. neut. aita (Av. aētaṯ, Skt. etad).

NOTE.—The second element of this word possibly occurs as acc. pl. masc. tā in Bh. 4. 72, according to Tolman *Cun. Sup.* p. v.

343. ana, *this*. The Anc. Pers. ana represents I. E. *eno : *ono. So Skt. ana, Lith. anàs, Grk. ἔνη (lit. *that day*), ἐκεῖνος < *ἐ-κε-ενος. The pronoun occurs in Ancient Persian in but one case, the instr. sg. masc. anā (see also 335).

344. ava, *that*. I. E. *owo, Av. ava, Skt. (gen. dual) avos, appears in Ancient Persian in the following forms, the endings of which have been discussed in the sections above.

Sg.	Masc.	Fem.	Neut.
A.	**avam**		N. A. **ava**
G.	**avahyā**		
Pl.			
N.	**avaiy**	**avā**	
A.	**avaiy**		
G.	**avaišām**		

345. **ima**, *this*. It seems that from the Aryan acc. sg. masc. ***im-am**, *i. e.*, the acc. of the stem **i** + the particle **-am**, new formations were made on **ima** as a stem, and from this the Ancient Persian shows these forms:

Sg.	Masc.	Fem.	Neut.
A.	**imam**	**imām**	**ima**
Pl.			
N.	**imaiy**	**imā**	
A.			**imā**
G.	**imaišām**		

346. **iyam**, *this*. From I. E. fem. **ī** of the stem **i**, with the particle **-am**, comes the Anc. Pers. **iyam**, which serves as masc. and fem. nom. sg.

347. **di**, *it*, *them*. From the Iranian stem ***di** the Ancient Persian has, generally as enclitic, the acc. sg. fem. **dim** (Av. **dim**) and the acc. pl. masc. and fem. **diš** (229 b.).

348. **ši**, *him*, *it*. I. E. ***si** appears as an enclitic in the Anc. Pers. acc. sg. masc. and neut. **-šim** (as neut. pl. in Bh. 4. 6, Tolmam *Lex.* 129) and acc. pl. masc. **-šiš** (Skt. **sīm**, Av. **hīm**, **hīš**.

349. Of enclitic pronominal forms of the third person, the Ancient Persian has also a gen.-dat. sg.

masc. **-šaiy** (GAv. **hōi**, YAv. **hē**; cf. **-maiy** < I. E. loc. ***moi**, 313); an abl. sg. neut. **-ša** in **hacā avadaša**, *therefrom* (YAv. **hō**); and as a re-formation to these two forms after the analogy of noun stems, the gen. pl. masc. **-šām**.

350. **hauv**, *this*. This nom. sg. masc., used also as fem. (written **hau-** before the enclitic **-šaiy**), is the Ancient Persian representation of I. E. ***so** + ***u**, which survives in the Grk. οὗτος. The Skt. **asāu**, Av. **hāu** (cf. Grk. αὕτη) are original feminine forms used also as masculine. **hauvam** in Bh. 1. 29 is probably to be explained as **hauv** + particle **am** by analogy with such forms as **adam**, **tuvam**, **iyam**. (Tolman *Lex.* 131.)

4. Ancient Persian Interrogatives.

351. **ka**, *who?* The I. E. interrogative pronoun ***qo** became Anc. Pers. **ka**, Skt. **ka**, Av. **ka**, Grk. τοῦ, Hom. τέο, Lat. **quod** (141); the I. E. ***qi** appears in Anc. Pers. **ciš-ciy** (indefinite), Skt. **cid** (adv.), Av. **ciš**, Grk. τίς, Lat. **quis**. From **ka** with **-ciy** (neut.) was formed the indefinite pronoun, nom. sg. masc. **kaš-ciy** (164. c). The stem **ci** with **-ciy** is seen in **ciš-ciy** (for ***cid-cid**), acc. sg. neut. (164. c).

5. Ancient Persian Relatives.

352. **tya**, *that*, *the*. The I. E. ***tyo**, ***tyā** after the analogy of the demonstrative, preserved the **t**, with no change to θ in Iranian, nor to **š** in Ancient Persian (164. b). This pronoun, originally demonstrative, is used generally as a relative, often as a definite article (571. 2). It has the following forms:

Sg.	Masc.	Fem.	Neut.
A.	**tyam**	**tyām**	(N. A.) **tya**
Pl.			
N.	**tyaiy**	**tyā**	**tyā**
A.		**tyā**	**tyā**
G.	**tyaišām**	**tyaišām**	

(a) **tyanā**, Bh. 1. 23, may be instr. sg. (335), or more probably it is written for acc. pl. neut. See Tolman *Lex.* 94.

353. **hya**, *who.* The I. E. ***syo**, ***syā** (Skt. **sya**) occurs in Ancient Persian in the nom. sg. masc. **hya**, fem. **hyā**.

Note.—The I. E. relative ***yo** appears in Ancient Persian only in adverbial forms (575).

CHAPTER XII.

The Verb.

1. The Indo-European Verb System.

354. In the development of the verb the Indo-European languages show less regularity than in noun formations. With the exception of the Sanskrit, the Greek, and the Slavonic, the derived languages have not preserved the verb system with anything like completeness.

355. Two groups of forms are to be observed: the one includes the Indicative, Subjunctive, Injunctive, Optative, and Imperative, commonly called the finite verb, having as a chief characteristic the so-called personal endings, and marked also by the use of reduplication and augment, and by distinctions of

voice, mood, and tense; the other group embraces those noun and adjective forms which have attached themselves to the verb, *i. e.*, the Infinitives and Participles, known as the infinite verb. Among the latter are *nomina agentis* and *nomina actionis*, which have assumed certain characteristics of the verb. The participle had already in the Indo-European period become a part of the verb system, and remained so in the various languages. The infinitive was originally but a case form of a *nomen actionis*, which was connected with the verb in the derived languages from their prehistoric period.

356. The parent language had two voices, the Active and the Middle, the meaning of which is illustrated in the terms applied by the Hindu grammarians to the two voices in Sanskrit, "**parasmai-padam**" and "**ātmane-padam**," *a word for another*, and *a word for one's self*. The difference is not always so clearly marked as would be indicated by the terms "transitive" and "reflexive." The Sanskrit, again, illustrates the distinction in **yajati**, *he offers*, active, when the priest offers sacrifice for another, and **yajate**, *he offers*, middle, when the worshiper offers sacrifice for himself. There was originally no distinct form for the passive voice, but even in Indo-European times the middle had begun to be used to express the passive idea—a tendency which continued in Sanskrit, Greek, and Latin.

357. The Moods of the Indo-European were the Indicative, Subjunctive, Optative, and Imperative. In addition to these are certain forms resembling the unaugmented indicative, with secondary personal endings, constituting what is called the Injunctive,

used mostly in commands and prohibitions, and therefore easily associated with the imperative. The distinction between the subjunctive and the optative was not maintained in the derived languages, except in the Vedic dialect of the Sanskrit and in the Greek. The optative absorbed the functions of the subjunctive in classical Sanskrit, as also in the Germanic and Balto-Slavonic groups. The Latin confused the forms of the two moods. The correspondence of certain Greek subjunctive forms with Latin futures has even raised the question among some scholars whether the Indo-European had a distinct subjunctive mood in any proper sense.

358. The Tense forms were mostly a late development in the Indo-European languages. There must have been originally two groups of forms in their relation to time: the present-aorist system and the perfect, the former including the present, imperfect, and an aorist from the same stem (486), and adding later the future (when not originally subjunctive) and the s-aorist (488); the perfect, distinguished by an ablaut change in the active indicative singular, by its personal endings, and by the form of its active participle. In the present-aorist group the distinction of present, past, and future was originally dependent on the context, the verb-form denoting manner of action (359) rather than time. That a temporal particle indicating past time was joined as an augment to certain forms (362) indicates that these forms did not carry in themselves the past idea. And even the particle was not necessary if the past was implied in the context; hence

the unaugmented forms occurred beside the augmented.

359. But while distinctions of time were, for the most part, not original in the verb forms, the distinction of the character or manner of the action (*Aktionsart*) comes down from the Indo-European period. The following kinds of action are recognized by philologists:

1. Momentary action, where the verb denotes a single or sudden act, with no notion of continuance or repetition. This idea inhered in the meaning of some verbs; sometimes it was the result of compounding the verb with a preposition. Such verbs were used for futures more often than for presents.

2. Cursive or durative action, where continued action is expressed, with no reference to its beginning or completion.

3. Perfect action, where the perfect form of the verb expresses a condition resulting from a completed act or a finished process.

4. Iterative action, where the verb expresses the repetition of an act. Such is the meaning especially of reduplicated presents, the repeated syllable denoting repetition of the act. Since repetition also indicates intensity of action, verbs of this kind readily become intensives.

5. Terminative action, where stress is laid on the beginning or the end of the action. Originally of this group were the nasal presents and those in **-sk̂(h)o**.

360. The finite verb forms of the Indo-European had distinctive endings for first, second, and third persons, and, like nouns and pronouns, had three numbers, Singular, Dual, and Plural. But the dual

failed to survive in the historical period of the derived languages except in the Aryan group, the Balto-Slavonic, and the Greek. And even in the Greek the first-person dual was lost in the primitive period, while the second and third persons were used only occasionally.

2. (a) Reduplication and Augment in Indo-European.

361. Reduplication occurs in many classes of words in the Indo-European languages and with varying signification. Sometimes it helped the onomatopoetic effect, as in Skt. **ululiṣ**, *howl*, Grk. ὀλολύζω, Lat. **ululo**; sometimes it indicated repetition, as in Skt. **dame-dame**, *in every house*, or Lat. **quisquis**; and, again, it was intensive, as in Skt. **prīyas-prīyas**, *very dear*. As is indicated by these examples, it sometimes consisted of the repetition of the entire word, but more often a syllable was repeated. Syllabic reduplication, even in Indo-European times, had become a means of indicating certain verb forms, especially formations for distinguishing the manner of action (359. 4), and later for denoting a tense relation. It was preserved in the Aryan languages, as also in Greek, Latin, Gothic, and Old Irish.

There were three tenses in which reduplication might occur: the present, the aorist, and the perfect. In some instances an entire syllable was repeated (occasionally even two syllables), more often the initial consonant, with ĭ or ē̆, formed a reduplicating syllable. Both ĭ and ĕ occurred in this syllable of reduplicated presents, ē̆ in the aorists and perfects.

362. The Augment, as has been mentioned above,

was originally a temporal adverb, which gave a past meaning to certain verb forms having no tense signification in themselves. This adverbial particle in Indo-European was e, which before forms beginning with a consonant made a separate syllable, and before an initial vowel contracted with that vowel; *e. g.*, I. E. *e-bherom, *I bore*, Skt. abharam, Grk. ἔφερον; I. E. *ēsm̥ < *e-esm̥, *I was*, Skt. āsam, Grk. Hom. ἦα. If the past signification was evident from the context, the augment could be omitted. Hence the parent language must have had *bherom beside *ebherom, and the unaugmented forms came in the course of time to be regarded as past as well as the augmented. Thus in the Vedic dialect of the Sanskrit and in Greek poetry, especially Homer, augmentless forms are very frequent.

(b) Reduplication and Augment in Ancient Persian.

363. In the reduplicating syllable of the present system the Ancient Persian either preserves the i of the Indo-European or has a representing Indo-European e; *e. g.*, Anc. Pers. aištatā < *a-sištatā, *he stood*, Skt. tiṣṭhati, Av. hištaiti, Grk. ἵστημι < *σι-στᾱμι, Lat. sisto; Anc. Pers. dadātuv, *let him give*, Skt. dadātu, GAv. dadāitī, but Grk. δίδωμι. The e which was used in the reduplication of the Indo-European aorist and perfect became a in the Ancient Persian perfect, as caxriyā, 3d sg. perf. opt. of kar, *do*. A palatal is substituted in the reduplicating syllable for an initial guttural of the root in accordance with 145, as in this form caxriyā.

364. The Indo-European augment e appears in

Ancient Persian as **a**; *e. g.*, I. E. ***e-bherom**, *I bore*, Anc. Pers. **abaram**, Skt. **abharam**, Grk. ἔφερον. In verbs beginning with a vowel there appears the long vowel or heavy diphthong resulting from contraction of the augment with the initial vowel; *e. g.*, I. E. ***ēsm̥** < ***e-esm̥**, *I was*, Anc. Pers. **āham**, Skt. **āsam**, Grk. Hom. ἦα; I. E. ***ēym̥** < ***e-eym̥**, *I went*, Anc. Pers. **nij-āyam**, Skt. **āyam**, Grk. ᾖα for *ἦα < *ἤγα. Augmentless forms with secondary endings occur as injunctives (357).

3. Indo-European Personal Endings.

365. For indicating the differences of person of the verb, the Indo-European had two groups of endings, the primary and the secondary. The primary endings belonged to the present indicative, the future in **-syo** (481), and the perfect indicative middle; the secondary to the augmented indicative tenses, the optative, and the injunctive forms. The perfect indicative active had endings peculiar to itself in the singular (385-387). Some subjunctive endings were primary, others secondary. The origin of the personal endings is not known.

366. The endings were added to verb roots sometimes with, sometimes without, the intervention of a thematic vowel, thus forming two great classes of verbs, thematic and unthematic (445).

a. Primary Endings of the Active.

Singular.

367. 1st pers. The Indo-European had in the first person the ending **-mi** for unthematic verbs, and **-ō** for thematic; *e. g.*, I. E. ***es-mi**, *I am*, Skt. **asmi**, Av.

ahmĭ, Anc. Pers. amiy, Grk. Lesb. ἐμμί, Att. εἰμί, Lith. esmi; I. E. *bher-ō, *I bear*, Grk. φέρω, Lat. fero, Goth. baira. The Aryan languages took over for thematic verbs the ending -mi of the unthematic; hence Skt. bharāmi, Av. barāmi, Anc. Pers. jadiyāmiy, *I pray*.

368. 2d pers. The Indo-European ending was -si; *e. g.*, I. E. *es-si, *esi, *thou art*, Skt. asi, Av. ahĭ, Anc. Pers. (subj.) āhy (66. 1, d), Grk. Hom. ἐσσί, Att. εἶ; I. E. *bhere-si, *thou bearest*, Skt. bharasi, Av. barahi, Anc. Pers. (subj.) pari-barāhy (66. 1, d). The Grk. 2d sg. of verbs in -ω is a re-formation on the analogy of secondary endings.

369. 3d pers. The Indo-European 3d person ended in -ti; *e. g.*, I. E. *es-ti, *he is*, Skt. asti, Av. astĭ, Anc. Pers. astiy, Grk. ἐστί; I. E. *bhere-ti, *he bears*, Skt. bharati, Av. baraitĭ, Anc. Pers. θātiy (< *θahatiy, 214), *he says*.

Dual.

370. 1st pers. The ending of the first person dual was probably -wes or -wos. It appears in Sanskrit, in Avestan, in the Balto-Slavonic group, and in Gothic; *e. g.*, I. E. *s-wes, *we (two) are*, Skt. svas; I. E. *bhero-wes(i), Skt. bharāvas, Av. usvahī, *we (two) will*.

371. 2d pers. The original ending was -t(h)es or -t(h)os; *e. g.*, I. E. *s-t(h)es, *you (two) are*, Skt. sthas; I. E. *bhere-t(h)es, *you (two) bear*, Skt. bharathas.

372. 3d pers. This form in Indo-European ended in -tes, as appears in Skt. stas, *they (two) are*, Av. stō; Skt. bharatas, *they (two) bear*, Av. barato.

Rem. The Greek 2d and 3d persons dual took over the ending of the 2d person dual of secondary tenses.

Plural.

373. 1st pers. The first person plural of Indo-European ended in -mes(i) : -mos(i); *e. g.*, I. E. *s-mes(i), *we are*, Skt. smas, Av. mahĭ, Anc. Pers. amahy; I. E. *bhero-mes(i), *we bear*, Skt. bharāmas, Av. barāmahi, Anc. Pers. θahyāmahy (66. 1, d; pass. with act. ending), Grk. Dor. φέρομες, Lat. ferimus.

374. 2d pers. The I. E. ending was probably -the, but this was not distinguished from the corresponding secondary ending (I. E. -te) in the derived languages, with the exception of the Aryan group. So I. E. *s-t(h)e, *ye are*, Skt. stha, Av. stā, Grk. ἐστέ; I. E. *bhere-t(h)e, *ye bear*, Skt. bharatha, Av. išaθā.

375. 3d pers. For this ending the Indo-European had after consonants the accented ending -énti, the unaccented -n̥ti, and after vowels -nti; *e. g.*, I. E. *s-énti, *they are*, Skt. santi, Av. hənti, Anc. Pers. haⁿtiy (179), Grk. Dor. ἐντί; I. E. didh-n̥ti, *they place*, Skt. dadhati, Grk. Hom. perf. πεφύκᾰσι; I. E. *bhero-nti, Skt. bharanti, Av. barənti, Anc. Pers. baraⁿtiy (179), Grk. Dor. φέροντι, Lat. ferunt, Goth. bairand.

b. Secondary Endings of the Active.

Singular.

376. 1st pers. The I. E. ending was -m̥ after a consonant, -m after a vowel; *e. g.*, I. E. *ēs-m̥, *I was*, Skt. āsam, Anc. Pers. āham, Grk. Hom. ἦα; I. E. *ebhero-m, *I bore*, Skt. abharam, Av. barəm, Anc. Pers. abaram, Grk. ἔφερον, Lat. feram (inj.).

377. 2d pers. The second person ended in -s; *e. g.*, I. E. *ēs-s, *thou wast*, Skt. asthās, Av. as, Grk. ἔστης; I. E. *ebhere-s, *thou didst bear*, Skt. abharas,

Av. jasō (for -å < -aḥ = -a-s), *thou camest*, Anc. Pers. (inj.) ava-rada (192), *leave thou*, Grk. ἔφερες.

378. 3d pers. The Indo-European ended in -t; *e. g.*, I. E. ēs-t, *he was*, Skt. asthāt, Av. as, ās, Anc. Pers. āha (440. a), Grk. Dor. ἦς < *ἠστ; I. E. *ebhere-t, *he bore*, Skt. abharat, Av. baraṯ, Anc. Pers. abara (229), Grk. ἔφερε.

Dual.

379. 1st pers. The original ending was -we or -wo, as in Skt. āsva, *we (two) were*, Av. ahvā, Lith. ēsva; Skt. abharāva, *we (two) bore*, Av. ǰvāva, O. Slav. vezově; but in most Indo-European languages the first person dual was lost at an early period.

380. 2d pers. The I. E. second person ended in -tom; *e. g.*, I. E. *ēs-tom, *you (two) were*, Skt. āstam, Grk. ἦστον; I. E. *ebhere-tom, *you (two) bore*, Skt. abharatam, Grk. ἐφέρετον, O. Slav. vezata.

381. 3d pers. The I. E. ending was -tām; *e. g.*, I. E. ēs-tām, *they (two) were*, Skt. āstām, Grk. ἤστην; I. E. *ebhere-tām, *they (two) bore*, Skt. abharatām, Av. jasatəm, Grk. ἐφερέτην.

Plural.

382. 1st pers. This ending of the Indo-European, like the corresponding primary ending, is not certainly known; it was probably -mĕ : -mŏ. Hence the Skt. āsma, *we were*, Av. ǝhmā, Lith. bùvome; Skt. abharāma, *we bore*, Av. bavāma, Anc. Pers. akumā.

383. 2d pers. The I. E. ending was -te; *e. g.*, I. E. *ēs-te, *you were*, Skt. āsta, Av. uštā, Grk. ἦστε, Lith. bùvote; I. E. *ebhere-te, *you bore*, Skt. abharata, Av. jasatā, Anc. Pers. (inj.) jatā (or jaⁿtā), Grk. ἐφέρετε.

384. 3d pers. Three forms of the ending occurred

here, as in the primary tenses: **-ent** was the accented ending following a consonant, **-n̥t** unaccented after a consonant, and **-nt** the ending after a vowel; *e. g.*, I. E. ***ēs-ent**, *they were*, Skt. **āsan**, Av. **hən**, Anc. Pers. **āha**^{n}, Grk. Dor. ἦν (=ἦεν, became 3d sg. after the introduction of the new formation ἦσαν); I. E. ***ebhero-nt**, *they bore*, Skt. **abharan**, Av. **barən**, Anc. Pers. **abara**^{n}, Grk. ἔφερον. **-at̰** of the GAv. **dadat̰** represents the I. E. **-n̥t** and, but for the influence of analogy, the Greek aorist ἔλυσαν, ἔδειξαν, etc., would have ended simply in -α (*i. e.*, -ατ < I. E. **-n̥t**).

c. Perfect Endings of the Active.

Singular.

385. 1st. pers. The ending was **-a**, which survived in the Aryan languages and in Greek; *e. g.*, I. E. ***dedork̂-a**, *I have seen*, Skt. **dadarça**, YAv. **didvaēša**, Grk. δέδορκα; I. E. ***woid-a**, *I know*, Skt. **veda**, GAv. **vaēdā**, Grk. οἶδα.

386. 2d pers. The second person ended in **-tha**; *e. g.*, I. E. ***woit-tha**, *thou knowest*, Skt. **vettha**, GAv. **vōistā**, Grk. οἶσθα (-ας was a re-formation), YAv. **dadāθa**.

387. 3d pers. The ending in Indo-European was **-e**; so Skt. **-a**, Av. **-a**, Grk. -ε; *e. g.*, I. E. ***dedork̂-e**, *he has seen*, Skt. **dadarça**, YAv. **yayata**, Grk. δέδορκε; I. E. ***woid-e**, *he knows*, Skt. **veda**, YAv. **vaēδa**, Grk. οἶδε.

Dual.

388. 1st pers. The Indo-European seems to have had here the **-we** or **-wo** of the corresponding form of secondary tenses. This ending appears in Sanskrit as **-va**, *e. g.*, **cakr̥va**.

389. 2d pers. No correspondence is found here between the Aryan and the Greek; *e. g.*, Skt. **cakrathur**, Grk. ἴστον.

390. 3d pers. In the third person, as in the second, the derived languages do not agree, the Sanskrit ending being **-atur**, the Avestan **-atarᵊ**, while the Greek has again the same ending as the present. The Aryan ending may have been influenced by that of the third person plural. The Sanskrit **-athur** and **-atur** of the second and third person stand in the same relation as the primary endings **-thas** and **-tas**. Examples are Skt. **yetatur**, *they* (*two*) *have endeavored*, Av. **yaētatarᵊ**, but Grk. ἴστον.

Plural.

391. 1st pers. The first person plural probably had as its ending the **-me** or **-mo** that belonged to secondary tenses; *e. g.*, I. E. ***wid-me** (**-mo**), *we know*, Skt. **vidma**, GAv. **yōiθᵊmā**, YAv. **didvīšma**, Grk. ἴσμεν.

392. 2d pers. The ending **-a** is found only in the Aryan group; the Greek has -τε; *e. g.*, Skt. **cakra**, Av. **vaorāzaθā**, Skt. **vida**, Grk. ἴστε.

393. 3d pers. An ending in **-r** occurs in various forms of the Aryan and of the Italic and Keltic languages. It was sometimes itself a personal ending, as in Skt. **vidur**, it sometimes united with the regular personal ending, as in Lat. **-ntur** < **-nto-r**. It occurs again in the third person plural of the perfect in Sanskrit and Avestan; *e. g.*, Skt. **āsur**, *they have been*, Av. **å̊ṅharᵊ**, but Grk. ἴσασι (< -αντι). Thus nothing definite is known of the Indo-European ending.

d. Imperative Endings of the Active.

Singular.

394. 1st pers. Only in Sanskrit and Avestan do we find the ending **-āni** of the first person. The Veda has also a shorter form in **-ā**, a subjunctive from which the longer form may have been made in primitive Aryan by the addition of the particle **-na**, which then became **-ni** by analogy with other forms in **-i**. Thus Skt. **bharāṇi**, YAv. **barāni**; Ved. also **bravā**, Av. **mrava**.

395. 2d pers. In thematic verbs the bare stem was used as second person; *e. g.*, I. E. ***bhere**, *bear thou*, Skt. **bhara**, Av. **bara**, Grk. φέρε. In unthematic verbs the Indo-European had sometimes the bare stem, sometimes the ending **-dhi**, which was probably originally adverbial, and occurs only in Aryan, Greek, and Balto-Slavonic; *e. g.*, I. E. ***ei**, *go thou*, Grk. ἔξει, ἵστη, Lat. **exī**, **vidē**; I. E. ***i-dhi**, *go thou*, Skt. **ihi**, GAv. **idī**, YAv. **iδi**, Anc. Pers. **-idiy**, Grk. ἴθι.

396. 2d and 3d pers. The I. E. ending **-tōd**, originally the abl. sg. neut. of the demonstrative pronoun used as an adverb of time, became an imperative ending of both second and third persons. In the Veda it is used almost always for the 2d pers. sg., in Greek it belongs only to the 3d pers. sg., and in Latin it occurs in both 2d and 3d pers. sg.; *e. g.*, I. E. ***ei-tōd**, *let him go*, Grk. ἴτω, Lat. **ito**, **memento**; Skt. **vittād**, *let him know*, Grk. ἴστω; I. E. ***bhere-tōd**, *let him bear*, Skt. **bharatād**, Grk. φερέτω.

397. The Aryan ending of the third person **-tu** was probably derived from the injunctive ending **-t** with the particle **-u**; *e. g.*, I. E. ***bhere-t-u**, *let him bear*, Skt. **bharatu**, Av. **baratu**, Anc. Pers. **baratuv**.

Dual.

398. The Sanskrit uses in the first person the subjunctive form with secondary ending. So also the second and third persons dual of the Sanskrit have secondary endings (injunctive). No distinctive dual imperative ending is found.

Plural.

399. 1st pers. The Sanskrit has, again, the secondary ending of the subjunctive, and a special imperative ending does not occur.

400. 2d pers. The secondary ending **-te** (injunctive) is seen in Skt. **bharata**, *bear ye*, Grk. φέρετε; Skt. **sta**, *be ye*, Grk. ἔστε, Lat. **este**.

401. 3d pers. Corresponding to the singular **-tu**, which survived in the Aryan languages, is the plural ending **-ntu, -n̥tu, -entu**; *e. g.*, I. E. ***bhero-nt-u**, *let them bear*, Skt. **bharantu**, Av. **barəntu**; I. E. ***dhedh-n̥t-u**, *let them put*, Skt. **dadhatu**; I. E. ***s-ent-u**, *let them be*, Skt. **santu**, GAv. **hə̄ntū**.

e. Primary Endings of the Middle.

Singular.

402. 1st pers. From the forms in the derived languages the Indo-European ending of the first person cannot be determined. The perfect ending was probably **-ai**, as Skt. **tutude** < I. E. ***t(e)tud-ai**, Lat. **tutudī**, and this ending was generalized in the Aryan group, while the Greek has -μαι, which appears in no other language. Thus, Skt. **āse**, *I sit*, Av. **gər^{ə}zē**, Grk. ἧμαι; Skt. **bhare**, *I bear*, Av. **yaze**, Grk. φέρομαι.

403. 2d pers. The original ending was **-sai**; *e. g.*, I. E. ***ēs-sai**, *thou sittest*, Skt. **āsse**, Av. **dā̊ṅhē** (subj.),

Grk. ἧσαι; I. E. *bhere-sai, *thou bearest*, Skt. bharase, Av. pərᵊsahe, Anc. Pers. maniyāhay (subj.), Grk. φέρεαι, γέγραψαι, Goth. bairaza.

404. 3d pers. In the third person the Indo-European had the ending -tai or (in the perfect) -ai; *e. g.*, I. E. *ēs-tai, *he sits*, Skt. āste, Av. vastē, Grk. ἧσται; I. E. *bhere-tai, *he bears*, Skt. bharate, Av. yazaite, Anc. Pers. yadātaiy (subj.), Grk. φέρεται, Goth. bairada; Skt. (perf.) dadhe, Av. daiδe. (The Greek perfect in -ται is a re-formation.)

Dual.

405. 1st pers. The original ending is not known. The Skt. ending -vahe is made on the analogy of the the first person plural; so also the Grk. -μεθον from the endings -μεθα and -σθον. Examples are: Skt. āsvahe, *we* (*two*) *sit*, bharāvahe, *we* (*two*) *bear*, Grk. λελείμμεθον.

406. 2d pers. The Sanskrit has -athe, the Greek -σθον, from which the original ending is not evident; *e. g.*, Skt. āsāthe, *you* (*two*) *sit*, Grk. ἧσθον; Skt. bharethe, *you* (*two*) *bear*, Grk. φέρεσθον; Skt. (perf.) dadhāthe, *ye* (*two*) *have put.*

407. 3d pers. The Sanskrit has -āte, and the Greek, as in the second person, has -σθον; *e. g.*, Skt. āsāte, Av. jamaētē (subj.), Grk. ἧσθον; Skt. bharete, *they* (*two*) *bear*, Av. vīsaēte, Grk. φέρεσθον, Skt. (perf.) dadhāte, *they* (*two*) *have put.*

Skt. bharethe, bharete, point to original Aryan endings -ĭthē and -ĭtē, and this -i- appears again in the Vedic aorist adhītām (cf. corresponding secondary endings, 415, 416).

Plural.

408. 1st pers. The Indo-European ending was probably -medhai, Prim. Ar. -madhai, represented by Skt. -mahe, Av. -maide, while the Grk. -μεθα is taken over from secondary tenses; thus, Skt. āsmahe, *we sit*, Av. mrūmaide, Grk. ἥμεθα; Skt. bharāmahe, *we bear*, Av. barāmaidē, Grk. φερόμεθα.

409. 2d pers. The Indo-European ending is not known; the Aryan was -dhvai, as appears in Skt. -dhve, YAv. -θwe, GAv. -duyē (for duvē), but the Greek has -σθε; thus Skt. ādhve, *you sit*, Grk. ἧσθε; Skt. bharadhve, YAv. čaraθwe, GAv. daduyē.

410. 3d pers. The Indo-European ending was -n̥tai after consonants and -ntai after vowels; *e. g.*, I. E. *ēs-n̥tai, *they sit*, Skt. āsate, Av. raēzaite, Grk. Hom. ἥαται (ἧνται is a re-formation), τετράφαται (perf.); I. E. *bhero-ntai, *they bear*, Skt. bharante, Av. barənte, Grk. φέρονται, βέβληνται (perf.), Goth. bairanda.

f. Secondary Endings of the Middle.

Singular.

411. 1st pers. The original ending cannot be decided from the forms in the derived languages. The Aryan group had -i, which in thematic verbs united with -a- to make -ai, Skt. and Av. -e, while the Grk. -μην is entirely distinct; *e. g.*, Skt. āsi, *I sat*, Av. aoǰī, Grk. ἥμην; Skt. abhare, *I bore*, Anc. Pers. ayadaiy, Av. baire, Grk. ἐφερόμην.

412. 2d pers. The Indo-European had two endings of the second person, -thēs and -so, probably using the former for unthematic verbs and the latter for thematic; then -thēs was generalized in Sanskrit, -so in Iranian, while both survive in Greek; *e. g.*,

I. E. *ēs-thēs, *thou didst sit*, Skt. āsthās, Av. mə̄nghā (< Ar. *man-sa), Grk. ἧσο, ἐδόθης (= Skt. adithās); I. E. *ebhere-so, *thou didst bear*, Skt. abharathas, Av. baraṅha, baraēša (opt.), Grk. ἐφέρεο, φέροιο, Lat. seque-re.

413. 3d pers. The original third person ended in -to; *e. g.*, I. E. *ēs-to, *he sat*, Skt. āsta, adita (< I. E. *edə-to), Av. mantā, Anc. Pers. patiy-ajatā, Grk. ἧστο, ἔδοτο, Lat. datur (< *da-to-r, 393); I. E. *ebhere--to, *he bore*, *bheroi-to (opt.), Skt. abharata, bhareta, Av. yazata, baraēta, Anc. Pers. agaubatā, Grk. ἐφέρετο, φέροιτο.

Dual.

414. 1st pers. The Indo-European dual endings are not known. The Aryan first person in -vadhi is a re-formation after the first person plural (cf. the corresponding primary ending, 405); *e. g.*, Skt. āsvahi, *we (two) sat*, Av. dvaidī, Skt. abharāvahi, *we (two) bore.*

415. 2d pers. The Sanskrit has here -āthām or ĭthām (the union of the thematic vowel with -ithām making -ethām), while the Greek has -σθον; *e. g.*, Skt. āsāthām, *you (two) sat*, Grk. ἧσθον; Skt. abharethām, *you (two) bore*, Grk. ἐφέρεσθον.

416. 3d pers. The Aryan endings were -ātām, -ĭtām, while the Greek had -σθην; *e. g.*, Skt. āsātām, *they (two) sat*, Av. daiδītəm, Grk. ἥσθην; Skt. abharetām, *they (two) bore*, Av. apərəsaētəm, Grk. ἐφερέσθην.

Plural.

417. 1st pers. The original ending was probably -medhə, from which the Aryan had -madhi and the

Greek -μεθα (used also as primary, 408); *e. g.*, I. E. *ēs-medhə, *we sat*, Skt. āsmahi, Av. varᵊmaidī, Grk. ἥμεθα; I. E. *ebhero-medhə, *we bore*, *bheroi-medhə (opt.), Skt. abharāmahi, bharemahi, GAv. barōimaidī, Grk. ἐφερόμεθα, φεροίμεθα.

418. 2d pers. What relation, if any, existed between the Aryan ending -dhwam (< I. E. -dhwom) and the Greek -σθε or dual -σθον is not clear. Examples are, Skt. ādhvam, *you sat*, GAv. āidūm, Grk. ἧσθε; Skt. abharadhvam, *you bore*, YAv. dārayaδwəm, Grk. ἐφέρεσθε.

419. 3d pers. The endings here correspond to those of this person in primary tenses (410), -n̥to being used after consonants, -nto after vowels; *e. g.*, I. E. *ēs-n̥to, *they sat*, Skt. āsata, Av. varatā, Grk. Hom. ἥατο (ἧντο is a re-formation), Prim. Grk. *ἐτιθατο; I. E. *ebhero-nto, *they bore*, Skt. abharanta, Av. yazənta, Anc. Pers. abaraⁿtā, Grk. ἐφέροντο, Lat. feruntur (< feronto-r, 393).

g. Imperative Endings of the Middle.

Singular.

420. 1st pers. In Skt. the primary (subjunctive) ending -e is used. No special imperative form occurs.

421. 2d pers. The Aryan ending -sva represents the I. E. reflexive pronoun *swe, which was joined to the imperative; *e. g.*, I. E. *bhere-swe, *bear thou*, Skt. bharasva; Skt. datsva, Av. dasva.

422. 3d pers. The ending -tām is only Aryan; *e. g.*, Skt. bharatām, *let him bear*, Av. vərᵊzyatąm, Anc. Pers. varnavatām.

Dual.

423. Here, as in the active, the Sanskrit has its first person after the analogy of the first person plural (with the **-v-** element instead of **-m-**), and the second and third persons with secondary endings (injunctive). No special dual imperative endings occur.

Plural.

424. 1st pers. The Sanskrit uses the subjunctive.

425. 2d pers. The secondary ending (injunctive) is seen in the Skt. **-dhvam.**

426. 3d pers. Whether any connection existed between the Skt. mid. **-ntām, -atām** and the Grk. act. *-ντων*, with change of voice, is not evident.

4. Personal Endings of Ancient Persian.

427. The personal endings that occur in Ancient Persian represent regularly the Indo-European, according to the treatment of Indo-European sounds in Ancient Persian as discussed in previous chapters. No dual number of the verb is found. The use of the plural verb instead of the dual is shown in Xerx. Pers. a. 17, **akumā**, where two persons (Xerxes and Darius) have just been mentioned.

a. Primary Endings of the Active.

Singular.

428. 1st pers. I. E. **-mi** remained in Anc. Pers. (written **-miy**, 66. 1) and was used not only for unthematic but for thematic verbs, as in Skt. and YAv. 2d pers. I. E. **-si** appears in Anc. Pers. as **-hy** (*i. e.*, **-h^{i}y**, 66. 1, *d*). 3d pers. The I. E. ending **-ti** was kept (written **-tiy**, 66. 1).

Plural.

429. 1st pers. I. E. **-mes(i) : -mos(i)** appears in Anc. Pers. **-mahy** (*i. e.*, **-mah^{i}y, 66.** 1, d). The 2d pers. is wanting. 3d pers. I. E. **-enti, -nti,** appear in Anc. Pers. **-a^{n}tiy, -^{n}tiy** (179, 66. 1).

b. Secondary Endings of the Active.

Singular.

430. 1st pers. I. E. **-m̥, -m** are kept in Anc. Pers. **-am, -m** (106, 178, 180). 2d pers. I. E. **-s** after becoming **-h** was lost (190, 192). 3d pers. I. E. **-t** was dropped (160, 229).

Plural.

431. 1st pers. I. E. **-me : -mo** occurs as **-mā** in Anc. Pers. (89, 93, 61). 2d pers. I. E. **-te,** Ar. **-ta** is written **-tā** (89, 61). 3d pers. I. E. **-ent, -nt** lose the final consonant and appear as **-a^n, -^{n}** (176, 160, 179, 229).

432. It is also to be observed that the sigmatic aorist endings **-š** (< Ir. **-št**) and **-ša** (**-ša^n**) are sometimes extended to other tenses; *e. g.*, imperf. **adurujiyaša^n**. The same ending is probably seen also in **abaraha^n**, NRa. 19 (**-s-** becoming **-h-** according to 192), instead of the regularly recurring **abara^n**. See Tolman *Madrassa Jubilee Volume*, 172.

c. Imperative Endings of the Active.

Singular.

433. The first person does not occur in Ancient Persian. In the second person no example of the bare stem is found, unless we take such forms as **jīvā** (2d sg. subj., Tolman *Lex.* 90) and **θadaya** (inj., Tolman *Lex.* 95) as imperative. The I. E.

ending -dhi appears as -diy (163, 168, 66. 1). The third person -tu is preserved as -tuv (66. 1).

Plural.

434. Only the second person of the plural occurs, with secondary ending (injunctive) -tā, representing I. E. -te (89, 61).

d. Primary Endings of the Middle.

Singular.

435. 1st pers. -aiy is possibly found in āyadaiy Bh. 5. 16 (Weissbach), but Tolman reads ayadaiy (imperf.). 2d pers. I. E. -sai is kept in Anc. Pers. -hay (66. 2. a). 3d pers. I. E. -tai remains as -tay (66. 2. a).

No plural forms of primary tenses occur.

e. Secondary Endings of the Middle.

Singular.

436. 1st pers. The Ar. -i remains in Anc. Pers. -iy (66. 1). The 2d pers. is wanting. 3d pers. I. E. -to is kept in Anc. Pers. -tā (93, 61).

Plural.

437. Only the 3d person of the plural is found in Anc. Pers., where -ⁿtā represents I. E. -nto (179, 93, 61).

f. Imperative Endings of the Middle.

Singular.

438. The 1st pers. does not occur. In the 2d pers. the I. E. ending -swe appears as -uvā (226, 89, 61). The 3d pers. ends in -tām.

Plural forms do not occur.

The endings given in the above sections are illustrated in the following forms:

439. Primary Active.

	I. E.	Anc. Pers.	Skt.	Av.
Sg. 1.	-mi (unthem.)	amiy	asmi	ahmi
	-ō (them.)	jadiyāmiy	bharāmi	barāmi
2.	-si	āhy (subj.)	asi	ahi
		-barāhy (subj.)	bharasi	barahi
3.	-ti	astiy	asti	asti
		θātiy	bharati	baraiti
Pl. 1.	-mes(i), -mos(i)	amahy	smas	mahi
		θahyāmahy	bharamas	barāmahi
3.	-enti (unthem.)	ha[n]tiy	santi	hənti
	-nti (them.)	bara[n]tiy	bharanti	barənti

440. Secondary Active.

	I. E.	Anc. Pers.	Skt.	Av.
Sg. 1.	-m̥ (unthem.)	āham	āsam	ārəm (rt. ar)
	-m (them.)	abaram	abharam	barəm
2.	-s	-rada (inj.)	abharas	jasō
3.	-t	āha	āsīt	as
		abara	abharat	barat̰
Pl. 1.	-mĕ, -mŏ	akumā	abharāma	bavāma
2.	-te	jatā (inj.)	abharata	jasatā
3.	-nt	āha[n]	āsan	hən
		abara[n]	abharan	barən

(a) The 3d pers. sg. āha (instead of original *āst) suggests the perfect forms, Skt. āsa, Av. åṅha, but the fact that the final a is not written in āh[a] points to the loss of the final t, showing that the perfect

form *āha must have taken on an imperfect ending and become *āhat, then āha.

(b) The fact that the 3d pers. sg. and the 3d pers. pl., āha, āhaⁿ, abara, abaraⁿ, were written alike may account for the introduction of a middle form with no middle meaning, as āhaⁿtā, abaraⁿtā, as well as the use, in this tense, of the signatic aorist endings mentioned in 432.

441. Imperative Active.

	I. E.	Anc. Pers.	Skt.	Av.
Sg. 2.	-dhi	-idiy	ihi	GAv. idī, YAv. iδi.
3.	-t-u	baratuv	bharatu	baratu
Pl. 2.	-te	jatā	sta	

442. Primary Middle.

	I. E.	Anc. Pers.	Skt.	Av.
Sg. 2.	-sai	maniyāhay (subj.)	bharase	pərᵊsahe
3.	-tai	gaubataiy	bharate	yazaite

443. Secondary Middle.

	I. E.	Anc. Pers.	Skt.	Av.
Sg. 1.	(Ar. -i)	adaršiy (-aiy, 490) ayadaiy	abhare	baire
3.	-to	agaubatā	abharata	yazata
Pl. 3.	-ento (unthem.)	āhaⁿtā		
	-nto (them.)	abaraⁿtā	abharantā	yazənta

444. Imperative Middle.

	I. E.	Anc. Pers.	Skt.	Av.
Sg. 2.	-swe	patipayauvā	datsva	dasva
3.	(Ar. -tām)	varnavatām	dattām	vərᵊzyatąm

6. The Indo-European Present System.

445. As has been stated above (366), the parent language had two great classes of verbs: the Unthematic, in which the personal endings were added directly to the verb root, and the Thematic, in which a thematic vowel **e : o** appeared before the personal endings. The unthematic formations are preserved best in the Aryan languages, where the first personal ending **-mi** was even extended to thematic verbs, but in Greek many verbs originally unthematic became thematic, and in Latin and the Germanic group very little remains of the unthematic conjugation.

446. Further classification of verbs is to be made according to their method of forming the present stem, *i. e.*, the stem of their present system, which includes present, imperfect, and aorist (358). Unthematic verbs may have (I) Light or Monosyllabic Heavy Base (A) without Reduplication, or (B) with Reduplication; (II) Dissyllabic Heavy Base (A) without Reduplication, or (B) with Reduplication; (III) Thematic verbs may have their stem (A) without Reduplication, the thematic vowel being either (1) unaccented or (2) accented, or (B) with Reduplication. To these must be added (IV) verbs with Nasal Stems, including (A) the **ṇā**-Class, (B) stems with "nasal infix," and (C) the **nu**-Class; (V) Sibilant and Explosive Stems, those (A) in **-s** or **-so**, (1) without Reduplication, or (2) with Reduplication; (B) in **-sk̂(h)o** (1) without Reduplication, or (2) with Reduplication; (C) in **-to-**, and **-dho-**, **-do-**; and (VI) Stems in (A) **-yo-**, (B) **-eyo-**, and (C) **-wo-**.

a. Unthematic Verbs.

447. In the active of unthematic verbs of monosyllabic base the accent fell on the base in the singular, which accordingly had the high ablaut grade, while in the dual and plural the accent fell on the endings, and these forms accordingly had the low grade of the base (119, 120).

448. Class I. A. Light or Monosyllabic Heavy Base without Reduplication. (Root Class.) The change of ablaut grade with change of accent between the singular and the dual and plural is illustrated in the following examples: I. E. ***és-mi̥**, ***s-énti**, Skt. **asmi**, **santi**, Av. **ahmi**, **hənti**, Anc. Pers. **amiy**, **haⁿtiy**; I. E. ***éi-mi**, ***i-més**, Skt. **emi**, **imas**, Grk. *εἶμι*, *ἴμεν*; I. E. ***ghén-ti**, ***ghn-énti**, Skt. **hanti**, **ghnanti** (cf. Anc. Pers. imperf. **ajanam**, pple. **-jata**); Skt. **adhām**, **adhāma** (for ***adhima**, **ā** carried over from the singular), Grk. *ἔθην*, *ἔθεμεν*.

(a) In the imperfect of ***es** a leveling of ablaut had occurred already in Indo-European times, so that the dual and plural adopted the strong or accented base that belonged to the singular; *e. g.*, I. E. ***ēs-m̥**, ***ēs-ent**, Skt. **āsam**, **āsan**, Anc. Pers. **āham**, **ahaⁿ**.

449. Class I. B. Light or Monosyllabic Heavy Base with Reduplication. These presents were Indo-European new formations from aorists, the original presents of which, on monosyllabic bases, had been lost. Examples are: I. E. ***dhídhē-mi**, ***dhidhə-més**, Skt. **dadhāmi**, **dadhma**, Grk. *τίθημι*, *τίθεμεν*; I. E. ***didō-mi**, ***didə-més**, Skt. **dadāmi**, **dadmas**, YAv. **daδāiti**, Anc. Pers. **dadātuv**, Grk. *δίδωμι*, *δίδομεν*.

(a) Of this class with heavy reduplication are the

presents known as Intensives or Frequentatives (361). Such are Skt. **vevedmi, vevidmas; varvarti, varvr̥tati;** Anc. Pers. **niy-a-θ^{r}ārayam** (465. a), YAv. **ni-srārayā** (thematic).

450. Dissyllabic Heavy Bases. The accent of presents with dissyllabic heavy bases fell in the singular on the first syllable of the base, and in the dual and plural on the personal ending. The singular accordingly has High Grade + Low Grade and the dual and plural Low Grade + Low Grade in the two syllables of the base (119, 120).

451. Class II. A. Dissyllabic Heavy Bases without Reduplication. In the first of the two syllables of the base the vowel or diphthong was short, in the second it was long; as, I. E. ***genē : *genō; *menēi.** The original accent on the first syllable changed the ablaut grade of the second so that ***genē** became ***génə** and ***menēi** became ***ménī̆**; but if the second syllable bore the accent these bases became ***gnḗ, *gnṓ, mnḗ(i)** (129). Hence I. E. pres. sg. ***génə-mi,** but pl. ***gnə-més,** Aor. ***gnō-m, *gnō-s,** etc. So I. E. ***réudə-mi, *rudə-més** from base ***rudā,** Skt. **rodimi, rudimas;** I. E. ***ghrebhī,** Skt. **agrabhīt,** I. E. ***ghr̥bhī,** Skt. **gr̥bhītas,** Anc. Pers. **āgarbīta;** I. E. ***bhwī,** Anc. Pers. **bīyā.**

452. Class II. B. Dissyllabic Heavy Base with Reduplication. Examples are: Skt. **nonaviti, vavaditi, jigāti,** Grk. *βίβησι* (reduced root), Skt. **daridrāti** (intensive; root reduced), Lat. **murmura-t, tintinna-t.**

b Thematic Verbs.

453. Class III. A. Thematic Verbs without Reduplication. The accent of these verbs was on the

root in all forms of the present and on the thematic vowel in all forms of the aorist. In the case of primary verbs the present was originally of the unthematic conjugation, going over, however, to the thematic conjugation before the separation of the languages. It kept the **-e- : -o-** from the aorist, where this vowel was in the earliest period part of the base. Thus from the I. E. ***léiq**, *leave*, the original forms must have been ***léiq-mi**, ***liq-més**, which later in the Indo-European period became ***léiq-ō**, ***léiqo-mes** on the analogy of ***liqó-m**, ***liqó-me** from the base ***liqé-**.

In this class the root is of High (seldom Extended) Grade, and is constant throughout the present; *e. g.*, I. E. ***bhere-ti**, ***bheron-ti**, Skt. **bharati**, **bharanti**, Av. **baraiti**, **barənti**, Anc. Pers. **baraⁿtiy**, Grk. φέρει, φέρουσι, Dor. φέροντι, Lat. **fert**, **ferunt**.

(a) Some presents of this class, however, use the aorist form of the stem and are called aorist-presents, as distinguished from the so-called imperfect-presents like ***bherō** above. Such are I. E. ***sphr̥r-é-ti**, Skt. **sphuráti**; I. E. ***wik̑-é-ti**, Skt. **viçáti**. Such forms often remain special aorists. So the two forms of the I. E. **bhéudh** and **bhudhé** appear in Skt. **bódhati**, **budhánta**, Grk. πεύθεται, ἐπύθετο.

454. Class III. B. Thematic Verbs with Reduplication. These have mostly the Low Grade of the root; *e. g.*, I. E. ***se-sq-e-ti** (root ***seq-**), Skt. Ved. **saçcati**, cf. Grk. ἕ-σπ-ετο. So from the root ***ĝhen**, ***ĝhn**, Grk. ἔ-πε-φν-ον. Examples of forms with fuller reduplication are the aorists, Skt. **āçiçat**, root **aç-**; Grk. ἤγαγον, root ἀγ-.

c. Nasal Stems.

455. Class IV. A. Stems in nā-. Here the nasal was inserted before the second syllable of a dissyllabic base, and the various ablaut grades of this syllable appear as -nā-, -nə-, -n-; *e. g.*, from the base dm̥-ā, I. E. *dm̥nā́-mi, *dm̥nə-més, Grk. δάμνημι (for -νᾱ-), δάμνᾰμεν; Skt. açnāmi, açnimas, açnanti; Av. āfrīnāmi, āfrīnənti, Anc. Pers. adīnā (imperf.); I. E. root *ĝn̥-nā-, Skt. janāmi, Anc. Pers. adānā (Tolman *Cun. Sup.* 124, 4; Keller KZ 39, 158; Reichelt *Aw. Elem.* 205).

(a) As to whether the Skt. -nī- is a new formation for -ni- < I. E. -nə-, or the I. E. -nə- was itself a new formation to -nā(i)- from which comes Skt. -nī-, scholars are not agreed.

456. Class IV. B. Stems with Nasal Infix. The nasal -n-, appearing in Skt. in the strong form as -na-, was infixed before the final consonant of the root in its Low Grade; *e. g.*, I. E. *junéĝ-mi, *junĝ-més, Skt. yunajmi, yuñjmas; I. E. root *werĝ-, Skt. vr̥ṇakti, vr̥ṅkte (mid.). In other cases -n- was inserted before the last consonant of the root, and the verb was then inflected in the thematic conjugation; *e. g.*, I. E. root *qert-, Skt. kr̥ntati; Skt. yuñjati, Lat. iungo; Skt. vindati, Anc. Pers. pres. act. pple. in vi^{n}da-farnah.

457. Class IV. C. Stems in -nu-. Here, as in -nā-stems, -n- was inserted before the second syllable of a dissyllabic root, the ablaut grades showing -neu-, -nū-, -nu-, -nw-; *e. g.*, I. E. *str̥-eu-, *str̥néu-mi, *str̥nu-més, *str̥nw-énti, Skt. str̥ṇomi, str̥ṇumas, str̥ṇvanti, Grk. στόρνῡμι, στορνῠμεν; Skt. akr̥ṇavam (im-

perf.), Anc. Pers. akunavam. Going over to the thematic conjugation are Skt. r̥ṇvati beside r̥ṇoti, cinvati beside cinoti; Av. -tanava < I. E. stem *tn̥neu-, root *ten- (cf. Skt. tanoti).

It is thus evident that A and C of this class may be regarded as special cases of B.

d. Stems in Sibilants and Explosives.

458. Class V. A. Stems in -s- or -so-, (1) Without Reduplication. Originally both thematic and unthematic verbs belonged to this group, but the Greek kept the unthematic forms only in the aorist. The Aryan extended the -s- to other forms than the present. The same -s- appeared in the Indo-European s-aorist and syo-future. Examples are: (unthem.) Anc. Pers. niy-apišam (aor.), nipištam (pple.) from piš < I. E. *peik̂s; Skt. dveṣṭi, dviṣanti, Av. daibišənti; (them.) Skt. ukṣati, ukṣanti, Grk. αὔξω (cf. Lat. augeo). (2) With Reduplication are Skt. didr̥kṣate from root darç, vivitsati from root vid.

459. Class V. B. Stems in -sk̂(h)o. The suffix -sk̂(h)o-: -sk̂(h)e- was added to the Low Grade of the root. (1) Without Reduplication, as I. E. *pr̥k̂-sk̂(h)e-ti, root *prek̂, Skt. pr̥cchati, Av. pərəsaiti, Anc. Pers. aparsam (imperf.), Lat. posco < *por(c)-scō; I. E. *gm̥-sk̀(h)ō, Skt. gacchāmi, Av. jasaiti, Grk. βάσκω; I. E. *is-sk̂(h)e-ti, Skt. icchati, YAv. isaiti; Skt. r̥cchati, Anc. Pers. ni-rasātiy (subj.); Anc. Pers. xšnāsātiy (subj.), Grk. (Epir.) γνώσκω, Lat. gnosco. (2) With Reduplication, as Grk. διδάσκω < *δι-δακ-σκω, Lat. disco < *di-dc-sco.

460. Class V. C. Dental Stems. The following are examples: (1) With stem in -to-, I. E. *sp(h)l̥-to-,

Skt. **sphutati** (for ***sphr̥tati**); Grk. πέκτω, Lat. **picto**. (2) With stem in **-do-**, **-dho-**, I. E. root ***(s)qer-**, Skt. **kūrdati**; Grk. ἄλδομαι (cf. Lat. **alo**); Grk. ἔλδομαι < *ϝελδομαι, Lat. **velle**; Lat. **gaudeo** < ***gāvideo** (cf. Grk. γαίω < *γαϝιω); I. E. root ***yu-**, Skt. **yodhati**.

(a) It is often difficult to determine whether the original form had **-d-** or **-dh-**, since in a number of the derived languages these sounds fell together (163, 168).

e. Stems in Semivowels.

The semivowel was followed by the thematic vowel **o : e**.

461. Class VI. A. Stems in **-yo-**. (1) One group of these verbs had the High Grade of root, bearing the accent; *e. g.*, I. E. ***peq-ye-tai**, Skt. **pacyate**, Grk. πέσσω; I. E. ***ghedh-yo**, Anc. Pers. **jadiyāmi** (cf. Skt. **haryati**, Grk. φθείρω, Aeol. φθέρρω < *φθερϳω); Anc. Pers. **-astāyam**, Y Av. **stāyamaide**. (2) Another group had the Low Grade of root and the accent on the thematic vowel. Except in Aryan passive formations, the verbs of this group shifted the accent to the root. So, Skt. **druhyati**, Anc. Pers. **adurujiya**; Skt. **kupyāmi**, Lat. **cupio**.

(a) Forms also occur with reduplication; *e. g.*, I. E. ***ti-tn̥-yō**, Grk. τιταίνω; Skt. **dediçyate**.

(b) Where the stem shows **-ēyo-** it may have been formed of **-ē** + **yo-**, or of **-ēy** + **o-**, *i. e.*, **ēi** of the second syllable of a dissyllabic heavy base. The reduction of this **ēi** gave a grade in **-ī**. **-ēy-o-** appears in the Anc. Pers. **agarb-āya-m**, Skt. **gr̥bhāyati**; cf. mid. **gr̥hīta**.

(c) To this class belong the Denominative verbs (477), and formations in **-ya-** were also made from verbs of other classes; *e. g.*, Skt. **varīvr̥tyate**, cf. **varvartti** (I. B.); **snāyate**, cf. **snāti** (II.).

462. Class VI. B. Stems in **-eyo-**. These verbs were thematic and had the High or Extended Grade of the root (o, ō; cf. 93). They were partly iterative, *e. g.*, I. E. ***pot-eyō**, Skt. **patayāmi**, Grk. ποτέομαι; φορέω beside φέρω; partly causative, *e. g.*, I. E. ***tors-eyō** (root ***ters-**), Skt. **tarṣayāmi**, Lat. **torreo**; I. E. ***sōd-eyō** (root ***sed-**), Skt. **sādayāmi**, Goth. **satja**.

(a) On the analogy of such forms as ***pet-e-ti**, ***pot-eye-ti**, this formation was extended to all kinds of presents; *e. g.*, Skt. **jīvayāmi** from **jīvāmi**.

463. Class VI. C. Stems in **-wo-**. An example of a stem made with this suffix is seen in forms from the I. E. root ***gei**, *live*, as Skt. **jīvati**, Av. **jivaiti**, Anc. Pers. **jīvā** (subj.), Lat. **vīvo**. To this class belong also those presents with **u-stem** which were transferred to the thematic conjugation; *e. g.*, I. E. ***tr̥-we-ti**, Skt. **turvati**, Av. **taurvayeiti** (cf. Skt. **tarute**).

7. The Ancient Persian Present System.

The following verb forms show the formation of the present in Ancient Persian according to the Indo-European classes mentioned above.

464. Class I. A. Light or Monosyllabic Heavy Base without Reduplication.

Strong root with High Grade; weak root with Low Grade.

ah, *be*; **jan**, *smite*; **kan**, *dig*.

Act.	Ind.	Subj.	Imv.
Pres. Sg.	1. amiy		
		2. āhy (= a^{h}ahiy)	2. jadiy
	3. astiy	3. ahatiy	3. ka^{n}tuv
Pl.	1. amahy		
	3. ha^{n}tiy		
Imperf. Sg.	1. āham		
	3. āha		
Pl.	2. jatā (inj.)		
	3. āha^n		
Mid.			
Imperf. Sg.	3. -ajatā		
Pl.	3. āha^{n}tā		

(a) The strong stem of the singular is carried over to the 1st person plural amahy; cf. Skt. smas.

(b) The 3d pers. sg. āha is formed after the thematic conjugation; cf. YAv. aṅhat̰. (See 440. a.)

(c) Other forms of jan are imperf. sg. 1 ajanam, 3. aja^n, and (with thematic vowel) pl. 3. -ajana^n.

(d) Of this class also are imv. sg. 2 pādiy, 3 pātuv, root pā, *protect;* ind. pres. sg. 3 aitiy, imperf. sg. 1 -āyam, root i, *go.*

465. Class I. B. Light or Monosyllabic Heavy Base with Reduplication.

Strong root with High Grade; weak root with Low Grade.

θ^ri, *lean;* dā, *put;* dā, *give;* dī, *see.*

Act.	Ind.	Imv.
Imperf. Sg.	1. -aθ^rārayam	*Pres. Sg.*
		2. dīdiy (for *dīdīdiy)
	3. adadā	3. dadātuv

(a) -aθ^rārayam for *-θ^rāθ^ray- shows the simpler form

of reduplication with dissimilation through the suppression of the initial consonant after the reduplicating syllable; cf. Av. ni-srārayå in 2 sg. subj. act. instead of *-srāsray-.

(b) The mid. imperf. 3 sg. aištatā (for *asištatā) from stā, *stand*, has been transferred to the thematic conjugation (Class III. 454), while the act. imperf. forms -astāyam, -astāya are made according to Class VI. A. 1.

466. Class II. A. Dissyllabic Heavy Base without Reduplication.

Low Grade of root + āy + thematic a (I. E. -ēi-o, ēi-e).

grab, *seize.*

	Act. Ind.	Mid. Ind.
Imperf. Sg. 1.	agarbāyam	
3.	agarbāya	3. agarbāyatā
Pl. 3.	agarbāyaⁿ	

Class III. A. Thematic, without Reduplication.

467. (1) High Grade of root + a (I. E. root + o : e).

θah, *say;* bar, *bear;* gub, *speak;* bū, *be;* xši, *rule;* rad, *leave.*

Act.	Ind.	Subj.
		Sg. 2. θāhy (for *θahāhy) -barā
Pres. Sg. 3.	θātiy (for *θahatiy)	3. bavātiy
Pl. 3.	baraⁿtiy	
Imperf. Sg. 1.	abaram	
2.	-rada (inj.)	
3.	abara	
Pl. 3.	abaraⁿ	

Mid.	Ind.	Subj.
Pres. Sg. 3.	gaubataiy	*Sg.* 3. gaubātaiy
Imperf. Sg. 1.	-axšayaiy	
3.	agaubatā	
Pl. 3.	agauba^{n}tā	

(a) Other forms of these verbs are: act. imperf. aθaham, aθaha; abavam, abava, abava^{n}; subj. pres. barāhy, -barāh(i)-; mid. imperf. abara^{n}tā.

(b) Of this class also are: mid. pret. -ataxšaiy, -ataxšatā, -ataxša^{n}tā, root taxš, *be active;* act. imperf. -anayam, -anaya, mid. imperf. anayatā, root nī, *lead;* mid. imperf. -apatatā, root pat, *fly;* mid. imperf. ayadaiy, subj. yadātaiy, root yad, *worship;* act. imperf. ašiyavam, ašiyava, ašiyava^{n}, root šiyu, *go;* act. imperf. -aha^{n}jam, root ha^{n}j.

(c) See forms from stem vaina under Class IV. A.

(d) Transferred to this class from Class I. A. are act. imperf. ajana^{n}, root jan, *smite*, and mid. imperf. āya^{n}tā, root i, *go.*

468. (2) Low Grade of root + á (I. E. root + ó : é).
hard, *forsake;* muθ, *flee.*

Act.	
Imperf. Sg. 3.	-harda (aharda? See Tolman *Lex.* 70).
	amuθa

469. Class IV. A. Stems in -nā- (I. E. -nā-).
Low Grade of root + nā.
dī, *injure.*

Act.	Ind.
Imperf. Sg. 1.	adīnam (thematic)
3.	adīnā

(a) Of this class, but formed after the thematic

conjugation, from the present stem **vaina**, *see*, are act. ind. pres. **vaināmiy**, subj. **vaināhy**; ind. imperf. **avaina**; mid. ind. pres. **vainataiy**.

(b) Class IV. B. is represented in Ancient Persian by the pres. act. pple. appearing only in the first element of the compound proper name **viⁿda-farnah**.

470. Class IV. C. Stems in **-nu-**.

Low Grade of root + **nau-:nu-** (I. E. root + **neu-:nu-**).

kar, *do*.

	Act.	Ind.	Mid.	Ind.
Pres. Sg.	3.	**kunautiy**		
Imperf. Sg.	1.	**akunavam**		
	3.	**akunauš** (432)		
Pl.	3.	**akunavaⁿ**	3.	**akunavaⁿtā**

(a) **akunavaⁿ** and **akunavaⁿtā** show the strong form of the stem carried over to the plural.

(b) With **-aya-** of Class VI. B. is the mid. ind. imperf. **akunavayaⁿtā**.

(c) Here also belongs **adaršnauš** (432) act. imperf. of **darš**, *dare*. Of this class, but with thematic inflection, are mid. subj. **varnavātaiy**, imv. **varnavatām**, from root **var**, *choose*.

471. Class V. A. Stems in **-s-**.

Root + **s-** (I. E. **-s-**).

piš, *write*.

	Act.	Ind.
Imperf. Sg.	1.	**-apišam**.

472. Class V. B. Stems in **-sa-** (Inchoative).

Root + **sa-** (I. E. **-sk̂(h)o-**).

θrah, *fear*; **fras**, *examine*; **yam**, *reach*.

Act.	Ind.		Subj.
		Sg. 2.	-parsāhy
Pres. Sg. 3.	tarsatiy	3.	-parsātiy
Imperf. Sg. 1.	tarsam (inj.), aparsam		
3.	atarsa		
Pl. 3.	atarsa[n]		
Mid.			
Imperf. Sg. 3.	-ayasatā		

(On consonant changes see 164, 173, 157. d).

(a) Of this class are act. subj. xšnāsāhy, xšnāsātiy, from root xšnā, *know;* imperf. arasam from root ar, *go.*

473. Class VI. A. Stems in -ya-.

(1) High Grade of root + ya- (I. E. -yo- : -ye-). jad, *pray;* pā, *protect;* man, *think.* Denominative stems avahya, *ask aid;* draujīya, *make a lie.*

Act.	Ind.	Mid.	Ind.
Pres. Sg. 1.	jadiyāmiy	*Pres. Sg.* 1.	-āvahyaiy
	Subj.		Subj.
Pres. Sg. 2.	draujīyāhy	*Pres. Sg.* 2.	maniyāhay
	Imv.	3.	maniyātaiy
Sg. 2.	-payauvā		

(2) Low Grade of root + yá- (I. E. -yó- : -yé-). duruj, *lie;* mar, *die.*

Act.	Ind.	Mid.	Ind.
Imperf. Sg. 3.	adurujiya	*Imperf. Sg.* 3.	amariyatā

(a) With -š- of the sigmatic aorist is the act. ind. imperf. adurujiyaša[n] (432).

474. Class VI. B. Stems in -aya-.

(1) Low Grade of root + aya- (I. E. -eyo- : -eye-). tar, *cross;* θa[n]d, *seem.*

Act.	Ind.	Subj.
Imperf. Sg. 1.	-atarayam	*Pres. Sg.* 3. θadayā (?)
3.	θadaya (inj.)	
Pl. 1.	-atarayāmā	

(a) From Class IV. C. is the mid. imperf. akunavaya^{n}tā, from root kar, *do.*

(2) Extended Grade of root + aya- (I. E. -eyo- : -eye-).

Causative and Iterative.

dar, *hold;* gud, *conceal;* had, *sit.*

Act.	Ind.	Act.	Subj.
Pres. Sg. 1.	dārayāmiy	*Pres. Sg.* 2.	-gaudayāhy
Imperf. Sg. 1.	-asādayam		
2.	-gaudaya (inj.)		
3.	adāraya		
Mid.			
Imperf. Sg. 1.	-adārayaiy		

(a) Here belong also act. imperf. amānaya (beside amāniya, cf. Class VI. A. 1), from root man, *await;* act. imperf. anāsaya, from root nās, *injure;* act. imperf. -āišayam, -āišaya, from root iš, *send.*

475. Class VI. C. Stems in -v-.

Root + v + thematic a- (I. E. -w + o- : e-).

ji, *live.*

Act. Subj. Pres. Sg. 2 jīvā (=jīvā-(h), secondary ending).

Subj. Fut. Sg. 3. jīvahyā (?) (Jackson; see 484.)

8. Derivative Verbs.

476. Certain of the class signs mentioned above came to be used either to make secondary formations

or to indicate some peculiarity of meaning. Such were the use of I. E. **-yó-**, **-yé-** of Class VI. A. in forming verbs from nouns, and the use of I. E. **-eyo-**, **-eye-** of Class VI. B. to give a verb an iterative or causative force.

477. Denominative Verbs. The I. E. **-yó-** : **-yé-**, Ar. **-yá-**, of Class VI. A. 2, appears in such verbs as Skt. **bhiṣajyati**, *he heals*, from **bhiṣaj**, *physician;* **adhvaryati**, *he offers*, from **adhvaras**, *offering;* Grk. κορύσσω < *κορυθyω, *furnish with a helmet*, from κόρυς, *helmet;* ἀγγέλλω < *ἀγγελyω, *announce*, from ἄγγελος, *messenger;* Lat. **custodio**, *guard*, from **custos**, *a guard;* **finio**, *end*, from **finis**, *an end.*

Such also are Anc. Pers. **avahya** in **patiy-āvahyaiy**, *I asked for help*, from ***avah**, *help*, Skt. **avas** (cf. Skt. **avasya**); and **[drauj]īyāhy**, (*lest*) *he think it false*, from ***drauja**, *lie.* Wackernagel reads **patiy-ava^{n}hyaiy** in Bh. 1. 55, following the Elam. **pat-ti-ya-man-ya-a**, and would make the form a future—a sense not suited to the passage.

478. Iterative and Causative Verbs. As has been stated above (361), one of the purposes served by reduplication was to suggest the repetition of an act. Hence reduplicated forms are often found as iteratives in the Indo-European languages, but usually distinguished from the verbs of the reduplicating class by a heavy reduplication; *e. g.*, Skt. **veviditi**, from root **vid**, *know.* But verbs with stem in **-eyo-** : **-eye-** (Class VI. B.) were sometimes iterative, as I. E. ***woĝh-eye-ti**, *he goes to and fro*, from root ***weĝh**, *go*, Grk. οἰχέομαι; Grk. φορέω beside φέρω; often causative, as I. E. ***pōt-eye-ti**, *he makes to fly*, beside ***peteti**, *he flies*, also ***pot-eye-ti**, *he flutters* (iter.), Skt. **pātayati**,

patati, patayati; Grk. *τροπέω* beside *τρέπω*; Lat. **moneo** beside **memini**.

So the Ancient Persian has **dārayāmiy**, *I hold*, from root **dar**, Skt. **dhārayati**, Av. **dārayeiti**; imperf. act. **adāraya**; also from **stā**, *stand*, imperf. act. **avāstāyam, niyāštāyam, niyāštāya**.

(a) From the root **man**, *await*, in Bh. 2. 28 occurs **amāniya**, perhaps through a mistake of the stone-cutter in writing **i** before **y**; elsewhere regularly **amānaya**.

(b) In NRb. 5 we seem to have in **niyasaya**, *he caused* [*the symbol of sovereignty*] *to extend* (?), a causative made as a secondary formation on the present stem **yasa**.

9. Passive Formations.

479. In the Indo-European period the middle voice had already developed passive meanings, probably from such a use of the perfect middle, which indicated the result produced by an action completed (359. 3). In the Aryan languages special passive forms were made by the use of **-yá-** of Class VI. A. 2. This was added to the Low Grade of the root, and the middle endings were used. (For 3d sg. aor. pass. with ending **-i**, see 489.) Since other formations (as Denominatives mentioned above, 477) were made by the use of this element, it is evident that the addition of **-yá-** in forming a stem did not in itself make a passive, but probably the fact that some verb or verbs having the stem in **-yá-** had also a passive signification led to the formation of other passives in this way, as, for example, the Greek aorist in *-ην* was originally active with intransitive

meaning, then was regarded as passive and became a model for the formation of aorists passive in general. Examples of the passive are: Skt. **dṛçyate**, *he is seen*, root **darç**; **badhyate**, *he is bound*, root **bandh**; Anc. Pers. **akariyaⁿtā**, *they were made*, root **kar**; **θahyāmahy** (act. ending), *we are called*, root **θah**.

(a) In Bh. 1. 20 we may read **ava akunavayaⁿtā** (mid.), *this they did;* or, perhaps, **ava akunavayatā** (pass.), *this was done.* In the same line **aθahya** imperf. may be read **aθahy**, aor. (489).

10. a. The Future.

480. It seems that the Indo-European had no form that was used exclusively as a future. Hence various methods of expressing the future idea appear in the derived languages. Very common is the formation with a sibilant corresponding to the **s**-class of verbs (Class V. A.). This was properly the subjunctive of the **s**-aorist. It is illustrated in Skt. **bhūṣati, sakṣe**, Grk. δείξω, λείψω, ὀλέω for *ὀλεσω, Lat. **dixo, faxo**.

481. An extension of this formation was made by the addition of **-yo- : -ye-**, as in verbs of Class VI. A. This **syo**-future survives in Aryan and Lithuanian. It was made usually on the High or Extended Grade of the root and was inflected like a present of the thematic conjugation; *e. g.*, I. E. ***dō-sye-ti**, ***dō-syonti** from ***dō**, *give*, Skt. **dāsyati, dāsyanti**, Lith. **bū́siu**, Av. **būšyant** (pple.).

482. The use of a present for a future is seen in Grk. εἶμι, νέομαι; and the subjunctive on the Root Aorist stem (486) with like meaning in πίομαι, χέω. So also Lat. **ero** < I. E. ***esō**, Grk. Hom. ἔω, Att. ὦ.

483. To these there was added the Periphrastic Future, formed of a *nomen agentis* and the verb meaning *be;* as, Skt. root **dā**, *give*, **dātr̥**, *giver*, future **dātāsmi, dātāsmas.**

484. Ancient Persian Future. Of the future formations mentioned above, the Ancient Persian shows the periphrastic future in **jatā bīyā**, *may he be* (*thy*) *slayer*, and an example of the **syo**-future may be preserved in **jīvahyā**, 3d sg. subj. (Jackson); cf. Ved. **kariṣyās.**

b. The Aorist.

485. The Indo-European had two kinds of aorist: the Root Aorist, which in its inflection added secondary endings to the root with or without augment, and the **s**-Aorist, which formed a stem by adding **-s** to the root. Whatever differences of signification originally existed between these two aorists must have been lost in the Indo-European period, since the derived languages show no distinction of use or meaning.

486. Root Aorist. The Root Aorist with Light or Monosyllabic Heavy Base is related to the present system (cf. 358); *e. g.*, I. E. ***liqe-**, Grk. ἔλιπον; I. E. ***é-we-wqom**, Skt. **avocam** < ***a-va-ucam**; Grk. Hom. εἶπον; I. E. ***dhēt**, ***edhēt**, ***dhəte**, root ***dhē**, *put*, Skt. **dhāt, adhāt, adhati** (mid.), GAv. **dāt**, Anc. Pers. **adā**, Grk. *ἔθη, ἔθεμεν; I. E. ***stāt**, ***estāt**, ***stəte**, root **stā**, *stand*, Skt. **asthāt, asthita** (mid.), Grk. ἔστη, ἔστημεν, for ἔστᾰμεν.

487. With Dissyllabic Heavy Base this aorist corresponds to the presents of Class II. A.; *e. g.*, I. E. base ***bhewā**, ***ebhūt**, Skt. **abhūt**, Grk. ἔφῡ; I. E. base ***ĝenō**, ***ĝnōm**, ***ĝnōme**, Grk. ἔγνων, ἔγνωμεν.

488. The s-Aorist. The Sigmatic Aorist corresponded to the unthematic presents of Class V. A., having the same relation to them as the Root Aorist to the presents of Class I. A. The s-Aorist is found in the Aryan group, the Greek, and the Slavonic; also in certain forms of the Latin, as in the perfect indicative and in futures (= subj. of s-aorist). This aorist, when made from light bases, had Extended Grade of the root in the singular of the indicative active, elsewhere Low Grade, but in Sanskrit a leveling of forms carried the Extended Grade over to the dual and plural also; *e. g.*, I. E. root *weĝh, *carry*, Skt. avākṣam, avākṣva, avākṣma; so also Lat. vēxī, vēximus. But in Greek a diphthong of the root was made short in the singular as in the dual and the plural; *e. g.*, I. E. root *leiq, *leave*, Skt. arāikṣam, Grk. ἔλειψα; and even Monosyllabic Heavy Bases shortened a long diphthong in all numbers, as I. E. root *dēik, *dik, *show*, Grk. ἔδειξα, ἐδείξαμεν. In its use of Dissyllabic Heavy Bases this aorist resembles the presents of Class II. A.; as, I. E. base *ĝenō, *ĝenē, *know*, Skt. ajnāsam, Grk. ἀνέγνωσα.

489. Aorist Passive. Peculiar to the Aryan languages is an aorist passive, 3d pers. sg., formed by adding -i to the root in High (sometimes Extended) Grade, with or without augment; *e. g.*, Skt. avāci, *he was called*, Av. avācī; Skt. adhāri, *he was held*, Anc. Pers. adāriy.

490. Aorists of Ancient Persian. The Ancient Persian preserves examples of the Root Aorist in adā (< I. E. *edhēt), akumā, and akutā. The s-Aorist occurs in āiš^a, -āiša^n, from root i, *go*, adaršiy (or adaršaiy, with thematic vowel) from root dar,

hold, and **-apišam** from root **piš**, *write*. From **dar**, *hold*, is also the Aorist Passive, 3d pers. sg. **adāriy**, and from **kan**, *dig*, is **akāniy**.

c. The Perfect.

491. The Indo-European Perfect was distinguished from other tense formations by the endings of the singular of the indicative active, by its very common use of reduplication, by its difference of ablaut grade between the active singular and other forms, and by its special participle formation.

The personal endings have been given above (385ff.).

492. The perfect appeared sometimes without reduplication, as in I. E. ***woide**, ***widme**, Skt. **veda**, **vidma**; or commonly with reduplication, as from I. E. root ***ĝen**, *produce*, Skt. **jajāna**, **jajñur**, Grk. γέγονε, γέγαμεν. Where forms without reduplication occur it is not likely that reduplication has been dropped, but the numerous examples of such forms in Latin and the Germanic languages, as well as the occasional instances in Sanskrit and Greek, indicate a somewhat extended use of the perfect without reduplication in Indo-European.

493. The vowel of the reduplicating syllable was **e** or **ē** (361 end), the latter of which is preserved only in Aryan, **ā** beside **a**. That **e** was regularly the vowel of the reduplicating syllable is shown by the Grk. δέδορκα, Skt. **dadarça**, Lat. **cecidi**, **dedi**, Old Lat. **memordi**, **pepugi**. Variations from this rule were new formations, as in the case of the Aryan assimilation of the vowel of the reduplicating syllable to the vowel of the root where the Indo-European had

oi : i or **ou : u**; *e. g.*, Skt. **rireca, riricima, juhāva, juhuvus**; and in Classical Latin occurred a like assimilation when the present and perfect had the same vowel, *e. g.*, **momordi, pupugi.**

494. The perfect following the unthematic conjugation had in the active singular the accent on the root, and therefore High Grade of the root, in all other forms the accent on the ending and Low Grade of the root. When the root vowel was of the e-series it appeared in the active singular as **o**; *e. g.*, I. E. ***woida, *widme**, *know*, Skt. **veda, vidma**, Grk. οἶδα, ἴσμεν (= ἴδμεν), Goth. **wait, witum**; I. E. ***weworta, *wewr̥tme**, *turn*, Skt. **vavarta, vavr̥tima.**

495. The Indo-European Perfect Participle Active was formed by the use of two suffixes, for some cases **-wes-** with ablaut grades, **-wes-, -wos-, -us-**, and for other cases **-wet-, -wot-.**

496. The Ancient Persian Perfect. The Perfect Active occurs in Ancient Persian in the 3d pers. sg. opt. **caxriyā**, from root **kar**, *do*. (For reduplication see 363; for **-x-**, 146; for the ablaut grade, 502.)

11. a. The Subjunctive.

497. The Indo-European Subjunctive survived in the Vedic dialect of Sanskrit, in Greek, and in a number of forms of Latin. The usurpation of subjunctive functions by the optative in Classical Sanskrit, in the Germanic and Balto-Slavonic groups, and the confusion of subjunctive and optative forms in Latin, have been mentioned above (357).

498. The endings of the subjunctive were partly primary, partly secondary (365).

499. The subjunctive of unthematic verbs was

made on a stem formed by the addition of **e : o** to the High Grade of the root, and thus became identical in form with the indicative of thematic verbs. And, like these verbs, it had the 1st pers. sg. in **-ō**; *e. g.*, I. E. ***esō**, Skt. **asā(ni)**, Grk. Hom. ἔω, Lat. **ero**; I. E. ***eset(i)**, Skt. **asat(i)**, Av. **aṅhaitī**, Anc. Pers. **ahatiy**, Lat. **erit**; I. E. ***eyomo(s)**, Skt. **ayāma**, Grk. Hom. ἴομεν. (Cf. ind. I. E. ***esmi**, ***esti**, ***imos**, Skt. **asmi, asti, imas**, etc.)

500. Thematic verbs had in the subjunctive a long vowel where the indicative used the thematic vowel **e : o**. Whether both **-ē-** and **-ō-** belonged to the Indo-European subjunctive formation is not certain, for the Greek η, ω may be on the analogy of ε, ο of the indicative, and the Aryan **ā** may represent either vowel (as well as **ā**) of the parent language. The Latin has for all persons sometimes **-ā-**, sometimes **-ē-** (but fut. ind. 1st pers. sg. **-a-**), and the Keltic and Slavonic languages have **-ā-**. The long vowel may have come into general use on the analogy of forms made on dissyllabic heavy bases ending in **-ē** or **-ā**. Examples with **-ē-** (**-ō-** ?) are Skt. **bharāti, bharāma**, Anc. Pers. **-barāhy**, Av. **barāt̰**, Grk. φέρωμεν, φέρητε, Lat. **ferēs, ferēmus**; and with **-ā-** are Latin forms like **ferās, ferāmus**. In some instances the long vowel appearing in the subjunctive belonged also to the indicative, either remaining constant through the indicative forms or occurring in the singular active only. So in Sanskrit, from **aprāt**, subj. **prās**, and from **adhāt**, subj. **dhāti**.

501. The Ancient Persian Subjunctive. In the formation of the subjunctive the Ancient Persian follows the Indo-European, adding **-a-** (I. E. **-e-** ; **-o-**)

to the High Grade root of an unthematic verb, using -ā- (I. E. long vowel) for thematic verbs; *e. g.*, (unthematic) āhy for *ahahiy, 2 sg. act.; ahatiy, 3 sg. act.; (thematic) -barāhy, θāhy for *θahāhy, 2 sg. act., bavātiy 3 sg. act.; maniyāhay, 2 sg. mid.; maniyātaiy 3 sg. mid. With secondary endings are -barā, jīvā, 2 sg. act., and perhaps θadayā 3 sg. act. (430, 440).

b. The Optative.

502. The Indo-European Optative was marked by an element that appeared in its ablaut grades as -yē-, -iyē-, -ī-. For unthematic verbs -(i)yē- was used in the active singular, elsewhere -(i)y- before an ending beginning with a vowel, -ī- before an ending beginning with a consonant. For thematic verbs -ī- was added after the thematic vowel (o), giving the diphthong -oi- before a consonant of the ending and -oy- before a vowel. The endings were secondary. Since in the active singular of unthematic verbs the accent rested on the -yē-, and in all other forms on the ending, the Low Grade of the root was used always. But from the earliest period the Sanskrit shows a leveling of -yā- to other forms than the active singular, and in like manner from the time of Homer the Greek -ιη- appears in the dual and plural as well as in the singular, while classical Latin took over the -ī- of the plural into the singular forms.

(a) Examples of the optative of unthematic verbs are: I. E. *s(i)yēm, *s(i)yēt, *sīte, Skt. syām, syāt, syāte, Av. ẖyəm, ẖyāṯ, Grk. εἴην, εἴη, εἶτε, εἴητε, Old Lat. siem, siet, sītis, Class. Lat. sim, sīs, sit, sītis.

(b) Examples of the optative of thematic indicative stems are: I. E. *bheroyṃ, *bheroit, *bheroite, Skt. bhareyam, bharet, bhareta, Av. barōit̰, Grk. φέροιμι (instead of *φερω < *φεροya), φέροι, φέροιτε. So the middle, I. E. *bheroito, Skt. bhareta, Av. yazaēta, Grk. φέροιτο.

503. The Ancient Persian Optative. Made after the unthematic conjugation are Ancient Persian optative forms in -yā- (I. E. -yē-), as -jamiyā (66. 2), 3d sg. act. (< I. E. *gm̥myēt, cf. Skt. gamyāt), caxriyā, 3d sg. act. perf. The 2d sg., bīyā, and 3d sg., bīyā, from bū, *be*, represent I. E. *bhwīyēs, *bhwīyēt (126). If vināθayaiš is to be read in Dar. NRb. 20 (so Tolman), we have in it an example of the 2d sg. optative of the thematic conjugation.

c. The Injunctive.

504. In a previous section (357) reference has been made to the Indo-European Injunctive, which in its formation resembles an augmentless indicative with secondary personal endings. It was used sometimes as indicative imperfect or present, particularly as present unaccented following an adverb. Sometimes it had a future or voluntative force. It was with this meaning that the second and third persons (except the 2d sg. act.) came to be an integral part of the imperative either in positive commands or, with I. E. *mē, in prohibitions; *e. g.*, Skt. bharata, Grk. φέρετε; Skt. sta, Grk. ἔστε, Lat. este; Grk. ἕπεο, Lat. sequere. And in Sanskrit and Primitive Greek the second person singular active also, from the aorist stem, was used as imperative; *e. g.*, Skt. dhās, dās, Grk. σχές. The prohibition expressed by *mē and

the injunctive is paralleled in the Greek use of *μή* with the aorist subjunctive, as *μὴ δείξῃς*, or the Latin **nē** with the aorist optative, as **nē faxis, nē feceris.**

505. The Ancient Persian Injunctive. Injunctive forms occur in Ancient Persian in the three persons of the singular and the second person plural; as **mā tarsam,** *may I not fear;* **mā avarada,** *leave thou not;* **mā apagaudaya,** *conceal thou not;* **mā θadaya,** *let it not seem;* **paraitā,** *go ye;* **jaⁿtā,** *smite ye.*

d. The Infinitive.

506. What we call the Infinitives of the Indo-European languages were originally case forms of *nomina actionis*, used like any other nouns in case relation with other parts of the sentence. Later this case relation was less strongly felt, and at length, having become stereotyped forms, in some of the derived languages, as Greek and Latin, they came to be associated with the verbal system. In the Aryan group, the Old Germanic, and the Balto-Slavonic, the infinitives preserve best their force as *nomina actionis.*

507. Two causes contributed to the large number of infinitive forms in the derived languages: the variety of cases used, and the variety of classes of *nomina actionis.* As nouns these forms were neither active nor middle, the distinction of voice being a late development.

508. The Vedic dialect of the Sanskrit had infinitives ending in **-am, -e, -tum, -tave, -mane, -vane, -sani,** but of these the Classical Sanskrit preserved only that in **-tum,** which is the same as the Latin supine; so, Skt. **dātum,** Lat. **datum;** Skt. **etum,** Lat.

itum—an accusative case of the *nomen actionis*. The dative of an **n**-stem is represented in Vedic **vidmane**, Grk. ἰδμέναι; γνῶναι, στῆναι (perhaps for -μναι : -μεναι), and Lat. imperative **legiminī**. Datives also are s-aorist infinitives, as Skt. **stuṣe**, Grk. δεῖξαι, and possibly the Latin passive infinitive in **-ī**. Such forms as the Grk. ἴδμεν, δόμεν, θέμεν, show the locative without ending of an **n**-stem (253). In the Lat. **regere** (< ***regese**) is the locative singular of an **s**-stem (cf. **genere** from **genus**).

509. The Ancient Persian Infinitive. In Ancient Persian the infinitives are datives of **n**-stems; *e. g.*, **kaⁿtanaiy**, root **kan**; **cartanaiy**, root **kar**; **θastanaiy** (**θaⁿstanaiy**), root **θah**. This suffix **-tanaiy** survives in Modern Persian **-tan** (**-dan**).

e. The Participle.

510. The Middle Participle. The Middle-Passive Participle in Indo-European was made with the suffix **-meno-**, other ablaut grades of which were **-mono-**, **-mno-**; so, Grk. φερόμενος (probably Lat. **feriminī**), Skt. **bodhamānas** (I. E. **-mono-**), Grk. στάμνος, Lat. **alumnus** (I. E. **-mno-**).

511. This participial form is probably to be recognized in the Anc. Pers. **jiyamna** (or **jiyamana**), *waning*, *growing old*, used as a substantive, *completion*, in Bh. 2. 62. (See Tolman *Lex*. 90.)

512. The Participle in **-to-**. All the Indo-European languages have preserved the Participle or Verbal Adjective which was originally formed by the addition of the **-to-** suffix to the Low Grade of the root. It was regularly passive when made from transitive verbs, yet the passive meaning did not always ac-

company this suffix, and such forms were made as well from intransitive verbs; *e. g.*, I. E. *gm̥-to-s, root *gem, *go*, Skt. gatas, Grk. -βατός, Lat. ventus.

513. The -to- Participle in Ancient Persian. The I. E. -to- suffix appears in forms in -ta- of the Ancient Persian; *e. g.*, Anc. Pers. basta, root baⁿd, *bind*, I. E. *bhn̥dhto-, Skt. baddha, YAv. basta. The suffix is added to a dissyllabic base in āgarbīta (Skt. gr̥bhīta, gr̥hīta). From the root gam we have the participle in -ata, as parāgmata, haⁿgmata.

(a) Other examples of this participle in Ancient Persian are: paraita, root i, *go;* karta, root kar, *make;* avajata, root jan, *smite;* fratarta, root tar, *cross;* dīta, root dī, *deprive;* duruxta, root duruj, *deceive;* pāta, root pā, *protect;* parābarta, root bar, *bear;* āmāta, root mā, *measure.* (For avaharta see Tolman *Lex.* 70.)

CHAPTER XIII.

THE LATE INSCRIPTIONS.

514. THE inscriptions from which comes our knowledge of the Ancient Persian belong almost entirely to the period of Darius I. and his son Xerxes (521–455 B.C.). No specimen of the language is found from an earlier time, unless indeed the Murghab inscription is to be assigned to Cyrus the Great (52), and much of what we have from a period later than Xerxes, particularly from the reigns of Artaxerxes II. and Artaxerxes III., shows a corruption of forms and an irregularity of construction which

not merely mark the decline of the language, but indicate that those who did the work of writing had but a meager acquaintance with the language which they wrote.

(a) The following irregularities in the use of cases are observed:

Nom. as gen.:

artaxšaθ^{r}ā, Art. Pers. a. 12, 14-15; b. 16, 19-20.
aršāma, Art. Pers. a. 20; b. 26.
xšāyaθiya, Art. Pers. a. 12-13, 14, 15, 16, 17-18; b. 16-17, 18, 20, 21-22, 23.
xšayāršā, Art. Pers. a. 16; b. 21.
dārayavauš, Art. Pers. a. 13-14, 17; b. 18, 22-23.

Nom. as acc.:

artaxšaθ^{r}ā, Art. Pers. a. 5; b. 7.
xšāyaθiya, Art. Pers. a. 5-6; b. 7-8.

Gen. as nom.:

artaxšaθ^{r}ahyā, Art. Sus. a. 2.
artaxšaθrahyā, Art. Ham. 3.
xšayāršahyā, Art. Ham. 3-4.
dārayavaušahyā, Art. Sus. a. 1-2, 3.
v^{i}štāspahyā, Art. Pers. a. 19; b. 25-26.

The genitive **dārayavaušahyā** in Art. Sus. a. 1-2, 3, is a peculiar reformation from the nominative, made like a genitive from an **a**-stem.

(b) Confusion of gender forms appears in the following:

Masc. as fem.:

imam, Art. Pers. a. 22; b. 29.

Masc. as neut.:

imam, Art. Sus. a. 3; Art. Ham. 5, 7.

Fem. as neut.:

imām, Art. Sus. c. 4-5.

(c) Confusion of noun stems occurs occasionally; as, **būmām** for **būmim**, Art. Pers. a. 2, b. 2; **šāyatām** for **šiyātim**, Art. Pers. a. 4, b. 5.

(d) The spelling of certain words varies; as, **šāyatām** for **šiyātim**, just cited; also **akunaš** for **akunauš**, Art. Sus. a. 3-4; **aθa^{n}ganām** for **aθa^{n}gainām**, Art. Pers. a. 22, b. 29-30; **artaxšaθrahyā** for **artaxšaθ^{r}ahyā**, Art. Ham. 3; **ardaxcašca** for **artaxšaθ^{r}ā** on the Venice Vase, assigned to the time of Artaxerxes I. (See Tolman *Lex.* 66-67); **dārayavašahyā** for **dārayavaušahyā**, Art. Ham. 2, 4; **martihyā** for **martiyahyā**, Art. Pers. a. 4-5, b. 6; **m^{i}θra**, Art. Pers. a. 25, b. 33, Art. Sus. a. 5; **m^{i}t^{a}r^{a}**, Art. Ham. 6, instead of ***miθ^{r}a** (69).

(e) The construction of **mām** in Art. Pers. a. 22-23, 26; b. 30, 35, is not evident. (See 526. 8.)

515. Very different from these are the formulaic words or expressions occurring in the earlier inscriptions. The language of these inscriptions was not a dialect distinct from that current among the people; it came from a truly Persian court under Darius and Xerxes; yet in the nature of the case it was official and, in a measure, religious. Certain peculiarities of form or usage may well have belonged, as Meillet believes (*Gram.* 8ff), to legal and religious formulas, affected by an influence foreign to the Persian; *e. g.*, the nom. plu. of **baga**, *god*, appears everywhere as **bagāha**, whereas all other **a**-stems have the nom. plu. in **-a**. We may compare the GAv. **-å̊ṅho** and Skt. (Ved.) **-āsas**. The pronominal adjective **aniya** occurring with **bagāha** takes the corresponding form **aniyāha**.

CHAPTER XIV.

ANCIENT PERSIAN SYNTAX—THE NOUN.

516. THE Syntax of the Ancient Persian language is for the most part exceedingly simple, the principles involved being practically the same as those governing all other Indo-European languages. These general principles may therefore be assumed or but briefly mentioned while the attention is directed especially to such peculiarities of syntax as the language presents.

1. Gender.

517. Grammatical gender and natural gender of nouns appear as in other languages. About two-thirds of all the nouns in the inscriptions are masculine, chiefly of Class II. (284). Among these are many proper names and other words referring to males. But further than this the meaning does not usually determine the gender, as is evident from the following:

518. Of the names of countries, **armina** and **hi^{n}du** are masculine, **uvārazm^{i}i** and **sakā** are feminine; of names of towns, **uvādaicaya** and **zāzāna** are masculine, **tāravā** and **raxā** are feminine; the name of a fortress **tigra** is masculine, while **sikayauvati** is feminine; of the names of months, **garmapada** and **θāigarci** are masculine, **adukaniša** and **bāgayādi** are feminine, **āθ^{r}iyādiya** and **θūravāhara** are neuter; while of words denoting periods of time, **māh**, *month*, is masculine, **θard**, *year*, and **xšap**, *night*, are feminine, and **raucah**, *day*, is neuter.

519. However, it may be noted that words denoting

places of abode or worship are neuter; such are **apadāna**, *palace*, **āyadana**, *sanctuary*, **māniya**, *estate*, **vardana**, *town*, and **hadiš**, *dwelling*.

Names of parts of the body are mostly masculine, as **gauša**, *ear*, **dasta**, *hand*, **nāh**, *nose*, **harabāna**, *tongue;* **[u]cašma**, *eye*, is probably neuter.

2. Number.

520. The use of the Singular, Dual, and Plural is, in general, the same as in the other languages. The dual survives only in the names of pairs of parts of the body, **gaušā**, Bh. 2. 74, *the (two) ears;* **dastaibiyā**, NRb. 41, *with the (two) hands*, and in the name of a weight used with the numeral, **II karšā**, Dar. Wt. Inscr. 1. Even **gaušā** and **karšā**, while corresponding to the Vedic dual form in **-ā** and Avestan in **-a**, still suggest the possibility of a confusion with the nominative-accusative plural forms.

[u]cašma, Bh. 2. 75, 89, seems to be an accusative singular used for the dual.

521. A collective noun may be treated either as singular or as plural; *e. g.*, **kāra hya hamiθ^riya manā naiy gaubataiy avam jadiy**, Bh. 2. 50-51, *The rebellious army which does not call itself mine, smite it*; **hauv kāram frāišaya . . . utāšām I martiyam maθištam akunauš avaθāšām aθaha**, Bh. 3. 55-58, *He sent forth an army, . . . and one man he made chief of them, thus he said to them.*

522. The collective use of **martiya** for *mankind* is parallel to the use of the English *man; e. g.*, **baga vazarka auramazdā . . . hya martiyam adā**, Xerx. Pers. a. 1-3, *A great god (is) Ahura Mazda . . . who created man.* However, **martiya** is everywhere treated as

singular unless in martiya [hya] draujana ahatiy hyavā [zū]rakara ahatiy avaiy mā dauštā [bīy]ā, Bh. 4. 68-69, *The man who shall be a deceiver, or who shall be a wrongdoer, be not a friend to these.* And even here the plural pronoun is probably due to the fact that two classes of men are defined in the two hya-clauses, for similar expressions with but one relative clause have the singular.

523. asa, *horse*, occurs as collective in aniyam ušabārim akunavam aniyahyā asam frānayam, Bh. 1. 86-87, *One part [of the army] I set on camels, for the other I brought horses.*

3. Case.

524. *Nominative.* In the use of this case as subject or predicate the Ancient Persian does not differ from the other languages.

525. *Vocative.* Only one example of the case is found: martiyā hyā auramazdāhā framānā hauvtaiy gastā ma θadaya, NRa. 56-58, *O man, what (is) the precept of Ahura Mazda, may it not seem to thee repugnant.*

526. *Accusative.* In addition to the use of the accusative as the direct object of a transitive verb, the following constructions are observed:

(1) The proleptic accusative. The subject of a dependent clause may be introduced by anticipation as object in a preceding clause; *e. g.*, mātyamām xšnāsātiy tya adam naiy bardiya amiy, Bh. 1. 52-53, *That they may not know me, that I am not Bardiya.*

(2) The proleptic accusative modifier; *e. g.*, martiya hya āgar[tā] āha avam ubartam abaram hya araika āha avam ufrastam aparsam, Bh. 1. 21-22,

What man was watchful, him well esteemed I esteemed; who was an enemy, him well punished I punished.

(3) Two accusatives of the same person or thing occur with a verb signifying to choose or make; *e. g.*, **hauv dārayavaum xšāyaθiyam adadā**, Dar. Pers. d. 2-3, *He made Darius king;* **utāšām I martiyam maθištam akunauš**, Bh. 3. 57, *And one man he made chief of them.*

(4) The complementary accusative modifier; as, **hauv pārsam hamiθ^{r}iyam akunau[š]**, Bh. 4. 9-10, *He made Persia rebellious.* So also with a participle, **dipim naiy nipištām akunauš**, Xerx. Van. 22-23, *He did not have* [lit. *make*] *an inscription written.* Cf. the locative in similar construction with **kar**, *make:* **pasāva di[š auramaz]dā manā dastayā akunauš**, Bh. 4. 35, *Afterwards Ahura Mazda made them in my hand.*

(5) Two accusatives with a verb of asking, the one of the person, the other of the thing; *e. g.*, **aita adam auramazdām jadiyāmiy**, Dar. NRa. 53-54, *This I pray of Ahura Mazda.*

The same construction is found with a verb meaning to deprive: **pasāva gaumāta hya maguš adīnā ka^{n}bujiyam utā pārsam utā mādam uta aniyā dahyāva**, Bh. 1. 46-47, *Afterwards Gaumâta the Magian took from Cambyses both Persia and Media and the other provinces.*

With a passive of such verbs one of the accusatives is retained; *e. g.*, **naiy āha martiya . . . hya avam gaumātam tyam magum xšaθ^{r}am dītam caxriyā**, Bh. 1. 49-50, *There was not a man who could make Gaumâta the Magian deprived of the kingdom.*

(6) The terminal accusative, either alone or with a preposition; *e. g.*, **avam adam frāišayam arminam**, Bh. 2. 30, *Him I sent forth to Armenia:* **kāra bābiruviya . . . abiy avam arxam ašiyava**, Bh. 3. 81-82, *The Babylonian people went over to that Arkha.*

It may be noted that of the many places in the inscriptions where the name of a country expresses the limit, only one has a preposition, **aθiy bābiru[m yaθā naiy up]āyam**, Bh. 1. 91-92, *When I had not come to Babylon.*

abiy occurs always in an expression of motion to a person (as in the example above, **abiy avam arxam**) and only once with a noun denoting place, **abiy imām dahyāum mā ājamiyā . . . ha[i]nā**, Dar. Pers. d. 18-19, *May not a hostile army come upon this country.*

(7) The accusative of specification; *e. g.*, **ka^{n}būjiya nāma kūrauš puθ^{r}a**, Bh. 1. 28, *Cambyses by name, son of Cyrus.* With a feminine noun **nāmā** is always written in this construction; *e. g.*, **sika[ya]uvatiš nāmā didā**, Bh. 1. 58, *A stronghold, Sikayauvatis by name.* See 290. A.(c), and Tolman *Lex.* 105.

(8) The accusative with a substantive; *e. g.*, **auramazdā θuvām dauštā bīyā**, Bh. 4. 55-56, *May Ahura Mazda be a friend to thee* (= *love thee*). Such an accusative may be explained from the verbal force of the *nomen agentis*, or the transitive force of the combination of the noun with **bīyā** (cf. τὰ μετέωρα φροντιστής, Plato, *Apol.* 18. b). But the genitive-dative occurs in a similar phrase, **auramazdātay jatā bīyā**, Bh. 4. 58, *May Ahura Mazda be a smiter to thee.*

Not easily explained is the accusative **mām** in such

a place as Dar. NRa. 37-38, **ava akunava^n ya[θā] mām kāma āha**, *This they did as was my will.*

(9) The adverbial accusative (neut. acc. sg. of an adjective used as an adverb); *e. g.*, **im[ā] dahyāva tyā adam agarbāya[m] apataram hacā pārsā**, Dar. NRa. 16-18, *These (are) the provinces which I seized far from Persia.*

(10) The accusative with prepositions. Besides **abiy** and **aθiy** (see 6 above), the following prepositions occur with the accusative: **a^{n}tar, upā, upariy, patiš, patiy** (postpos.), **parā** (postpos.), **pariy**, and **pasa** (combined with its accusative in the adverb **pasāva**); *e. g.*,

a^{n}tar imā dahyāva martiya hya āgar[tā] āha, Bh. 1. 21, *Within these provinces what man was watchful*, etc.

adam kāram pārsam utā mādam frāišayam hya upā mām āha, Bh. 3. 29-30, *I sent forth the Persian and Median army which was by me.*

upariy arštām upariy[axšayaiy], Bh. 4. 64-65, *With rectitude I ruled.*

hauv vahyazdāta . . . āiš . . . patiš artavardiyam hamaranam cartanaiy, Bh. 3. 35-36, *This Vahyazdâta went against Artavardiya to engage in battle.*

θūravāharahya māhyā jiyamnam patiy, Bh. 2. 61-62, *At the end of the month Thûravâhara.* (On the adverb **patiy** see Tolman *Lex.* 107-108.)

xšapavā raucapativā, Bh. 1. 20, *Either by night or by day.*

avaparā ašiyava, Bh. 2. 72, *Along there he went.*

kašciy naiy adaršnauš ciščiy θastanaiy pariy gaumātam, Bh. 1. 53-54, *Any one did not dare to say anything against Gaumâta.*

pasāva kāra araika abava, Bh. 1. 33, *After that the people became rebellious.*

The adverb **nipadiy** seems to be used with an accusative in Bh. 3. 73-74, **vivāna hadā kārā nipadi[y] t[ya]iy ašiyava**, *Vivâna with an army went in pursuit of them.*

527. *Genitive.* The Genitive case, as in other Indo-European languages, may be the modifier of a noun or adjective, or the complement of a verb.

(1) The very common use of the genitive modifying a noun is seen in **vašnā auramazdāha [a]damšām xšāyaθiya āham**, Bh. 1. 13-14, *By the grace of Ahura Mazda I was king of them.*

(a) This genitive also occurs often in the predicate; *e. g.*, **jatā . . . avam kāram hya dārayavahauš xšāyaθiyahyā gaubataiy**, Bh. 3. 58-59, *Smite that army which calls itself of Darius the king;* **aita xšaθ^{r}am hacā paruviyata amāxam taumāyā āha**, Bh. 1. 45-46, *This kingdom from long ago was of our family.*

(b) The partitive genitive occurs with a pronoun, a numeral, or a superlative; *e. g.*, **āha . . naiy amāxam taumāyā kašciy**, Bh. 1. 48-49, *There was not any one of our family;* **VIII manā taumāy[ā tyai]y [pa]ruvam xšāyaθiyā āha^n**, Bh. 1. 9-10, *Eight of my family (there were) who were formerly kings;* **auramazdā vazarka hya maθišta bagānām**, Dar. Pers. d. 1-2, *The great Ahura Mazda, who (is) the greatest of the gods.*

(c) The appositional genitive is found where the name of a month occurs with **māh**; *e. g.*, **garmapadahya māhyā IX raucabiš**, Bh. 1. 42, *Nine days in the month (of) Garmapada.*

2. (a) The genitive is complementary to the verb

in **adamšā[m] patiyaxšayaiy**, Dar. NRa. 18-19, *I ruled them.*

(b) The genitive may be used adverbially denoting time within which an action occurs; *e. g.*, **ima tya adam akunavam hamahyāyā θarda**, Bh. 4. 59-60, *This (is) what I did within the same year.*

(c) The genitive occurs with **pasā** in an adverbial phrase in **hya aniya kāra pārsa pasā manā ašiyava mādam**, Bh. 3. 32-33, *The rest of the Persian army went with me to Media.*

528. The loss of the Dative case and the taking over of its functions by the genitive have been mentioned above (266). The following examples illustrate uses of this dative-genitive:

(1) The Indirect Object; *e. g.*, **iyam dahyāuš pārsa tyām manā auramazdā frābara**, Dar. Pers. d. 6-7, *This (is) the country Persia which Ahura Mazda gave me;* **aitamaiy auramazdā dadātuv**, Dar. NRa. 54-55, *This let Ahura Mazda give me.* **-maiy** is used in the oft-repeated phrase **auramazdāmaiy upastām abara**, *Ahura Mazda bore me aid*, **manā** occurring only in Dar. Pers. d. 13.

With forms of **duruj**, *lie, deceive*, we find either the dative-genitive or the accusative; *e. g.*, **hauv kārahyā avaθā [a]durujiya**, Bh. 1. 38-39, *He thus lied to the people;* **kāram avaθā adurujiya**, Bh. 1. 78, *He thus deceived the people.*

The indirect object may occur also with an intransitive verb; *e. g.*, **māt[ya] . . . avahyā paruv θa[dayā]**, Bh. 4. 48-49, *Lest to him it seem too much.*

(2) The dative-genitive may have the meaning of a dative of Reference or Interest; *e. g.*, **avataiy**

auramazdā nikaⁿtuv, Bh. 4. 79-80, *This let Ahura Mazda destroy for thee.*

(3) The Personal Agent may be expressed by the genitive; *e. g.*, **avaθāšām hamaranam kartam**, Bh. 3. 19, *Thus the battle (was) fought by them;* **tya manā kartam utā tyamaiy piθʳa kartam**, Xerx. Pers. a. 19-20, *What (was) done by me and what (was) done by my father.* Since, however, this use of the case occurs only with **kartam**, the participle may have been treated as a noun, and the construction would then be classed with 527 (1).

(4) The dative-genitive with adjectives or adverbs; *e. g.*, **brāt[ā bardi]ya nāma āha hamātā hamapitā kaⁿbūjiyahyā**, Bh. 1. 29-30, *There was a brother, Bardiya by name, having the same mother and the same father with Cambyses;* **kārahy[ā naiy] azdā abava**, Bh. 1. 31-32, *It was not known to the people;* **adataiy azdā bavātiy**, Dar. NRa. 45-46, *Then it will be known to thee.*

(5) Similar to (4) is the dative-genitive with derivative nouns; **martiyā tyaišaiy fratamā anušiyā āhaⁿta agarbāyaⁿ**, Bh. 3. 48-49, *What men were his foremost allies (= devoted to him) they seized;* **auramazdātay jatā bīyā**, Bh. 4. 58, *May Ahura Mazda be a smiter to thee.*

529. *Ablative.* The identity of form of the ablative singular with the instrumental of **a**-stems, with the genitive of **ā**-stems and consonant stems, has been mentioned above (271, 273). The ablative, however, is distinguished in this, that the preposition **hacā** always occurs with it. It has the following uses:

(1) Ablative of Separation; (a) with a verb, *e. g.*, **pasāva adam nijāyam hacā bābirauš**, Bh. 2. 64-65,

Afterwards I went from Babylon; (b) with an adjective, *e. g.*, **pasāva kāra haruva hamiθ^{r}iya abava hacā ka^{n}būjiyā**, Bh. 1. 40, *Afterwards all the people became estranged from Cambyses;* (c) with an adverb, *e. g.*, **im[ā] dahyāva tyā adam agarbāya[m] apataram hacā pārsā**, Dar. NRa. 16-18, *These (are) the provinces which I seized afar from Persia.*

Metaphorical separation is expressed in **kāra pārsa hya v^{i}θāpatiy hacā yadāyā fratarta**, Bh. 3. 26, *The Persian army in the palace departed from their loyalty;* **hacā draugā daršam patipayauvā**, Bh. 4. 37-38, *Protect thyself strongly from deceit.*

(a) **hacā** comes to be used with adverbs both of place and of time; *e. g.*, **hacā avadaša kāram āyasatā**, Bh. 3. 42-43, *From thence he took an army.* This use of **hacā** is easily explained from the ablative singular of the pronoun in **avadaša**, and possibly the use with other adverbs was an extension of this; *e. g.*, **aita xšaθ^{r}am hacā paruviyata amāxam taumāyā āha**, Bh. 1. 45-46, *This kingdom from long ago was of our family.*

(2) Ablative of Personal Agent; *e. g.*, **yaθāšām hacāma aθahya [a]vaθā akunavaya^{n}tā**, Bh. 1. 23-24, *As it was commanded to them by me, so they did.*

(3) Ablative of Cause. If we read **daršma^{n}**, abl. sg. of an **n**-stem, we have an expression of cause in Bh. 1. 50-51, **kārašim hacā daršma^{n} atarsa**, *The people feared him for his tyranny.*

(4) **hacā** with the ablative occurs regularly with **θ^{r}ah**, *fear; e. g.*, **hacā aniyanā naiy tarsatiy**, Dar. Pers. d. 11-12, [*The province*] *does not fear an enemy;* **hacāma atarsa^{n}**, Dar. Pers. e. 9, [*The provinces*] *feared me.* Only in the example from Bh. 1. 50-51,

quoted under (3), do we apparently find the accusative (**-šim**) with this verb. Some would even hold that **-šim**, while originally accusative, was used for other case forms, and here as ablative, comparing the Vedic use of **īm** as both singular and plural in all genders. (So Meillet, *Gram.* 345.) In one place (Bh. 5. 15) supplied by King-Thompson, the verb **θʳah** is used absolutely.

530. *Instrumental.* This case has the following uses:

(1) Without a preposition it expresses means or instrument; *e. g.*, **vašnā auramazdāha ima xšaθʳam dārayāmiy**, Bh. 1. 26, *By the grace of Ahura Mazda I hold this kingdom.*

(2) Very frequently the instrumental occurs with the preposition **hadā** to express accompaniment; *e. g.*, **hauv vidarna hadā kārā ašiyava**, Bh. 2. 21-22, *This Hydarnes with the army went away;* **hauv fravartiš hadā kamnaibiš asabāribiš amuθa**, Bh. 2. 71, *This Phraortes with a few horsemen fled.*

(3) The instrumental is used also with the preposition **anā**, *throughout*, and the postpositive **-patiy**, *at, in; e. g.*, **vasiy aniyašciy naibam kartam anā pārsā**, Xerx. Pers. a. 13-14, *Much else (that is) beautiful (was) done throughout Persia;* **kāra pārsa hya vⁱθāpatiy hacā yadāyā fratarta**, Bh. 3. 26, *The Persian army which (was) in the palace departed from their loyalty.*

NOTE.—On a possible instance of **anuv** with the instrumental in Bh. 1. 92, see Tolman *Lex.* 76-77, s. v. **ufrātu**.

(4) Difficult of explanation is the use of the instrumental as subject. This occurs in the oft-repeated

phrase **raucabiš θakatā āha^{n}** in giving a date; *e. g.*, **anāmakahya māhyā XV raucabiš θakatā āha^{n}**, Bh. 2. 56, *Fifteen days in the month Anâmaka were completing their course.* Here **raucabiš** has so completely lost its value as instrumental that **θakatā** in the predicate is nominative. That such is the construction seems probable from comparison with the only example of the singular **rauca** in a similar phrase, **garmapadahya māhyā I rauca θakatam āha**, Bh. 3. 7-8, *One day in the month Garmapada was completing its course.* Again it is to be noted that the Avestan shows the same use of the instrumental as nominative (also as vocative and accusative), which Reichelt explains as arising from the connection of subjects thus: A with B, with C, instead of A and B and C; then the "with B," "with C" passed into use as subjects even when not connected with the nominative A (Reichelt, *Aw. Elem.* 427; see also Tolman *Lex.* 95, s. v. **θ^{a}k^{a}t^{a}a**).

531. *Locative.* (1) The locative of names of countries, provinces, or towns is used without a preposition; *e. g.*, **m[āru]š nāma vardanam mādaiy**, Bh. 2. 22-23, (*There is*) *a town Mâru by name in Media;* **hauv duvitīyama udapatatā pārsaiy**, Bh. 3. 23-24, *He was the second to rise against me in Persia.*

(2) In all other places the locative occurs with a preposition, usually the postpositive **-ā**; *e. g.*, **drauga dahyauvā vasiy abava utā pārsaiy utā mādaiy u[tā an-]iyāuvā dahyušuvā**, Bh. 1. 34-35, *There was deceit to a great extent in the land, both in Persia and in Media and in the other provinces;* **di[š auramaz]dā manā dastayā akunauš**, Bh. 4. 35, *Ahura Mazda put them in my hand.* So also in an expression of time;

e. g., **θāigarcaiš māhyā IX raucabiš**, Bh. 2. 46-47, *Nine days in the month Thâigarci.*

(a) If, as Bartholomæ has held, **ašnaiy**, Bh. 2. 11-12, is locative singular of **ašna**, *march*, without postpositive **-ā**, we have in it an exception to the rule here stated. (See Tolman *Lex.* 71-72.) The adverb **nipadiy** appears to be a locative singular form of **niy + pad**, also made without postpositive **-ā**. (See Tolman *Lex.* 106.) Another example of the locative as an adverb is seen in **avahyarādiy**, *for this reason.* (See Tolman *Lex.* 70.)

(3) Other prepositions (postpositive) used with the locative are **-adiy** and **-patiy** (following **-ā**); *e. g.*, **ufraštādiy** (= **ufraštā-adiy**) **parsā**, Bh. 4. 69, *Punish* (*them*) *with severe punishment;* **pasāvašim hagmatānaiy uzmayāpatiy akunavam**, Bh. 2. 76, *Afterwards I put him on a cross in Ecbatana.* The survival of the postpositive **-patiy** in Middle Persian is illustrated in the corresponding phrase of the Turfan MSS.; see Tolman *Lex.* 79, s. v. **uzma**.

CHAPTER XV.

SYNTAX OF THE VERB.

1. Voice.

532. THE distinction of meaning between the active and the middle of the Indo-European has been pointed out (356)—a distinction that may be observed in Ancient Persian; *e. g.*, **IX xš[āyaθiy]ā agarbāyam**, Bh. 4. 7, *I seized nine kings;* **xšaθ**[r]**am**

hauv agarbāyatā, Bh. 1. 41-42, *He seized the kingdom (for himself).*

533. The use of the Indo-European middle forms as passive has been mentioned above (479). This is common also in Ancient Persian, as **fravartiš āgarbī[ta] anayatā abiy mām**, Bh. 2. 73, *Phraortes seized was led to me*, beside the passive in **duvarayāmaiy basta adāriy**, Bh. 2. 75, *He was held bound at my court.* (See also 539. 2).

2. Mood.

534. *Indicative.* As in the other languages, the indicative is used in clauses, whether independent or dependent, which make the statement of a fact. Such a dependent clause may be relative, temporal, causal, or substantive; *e. g.*, **avam martiyam agarbāya^n hyašām maθišta āha**, Bh. 2. 12-13, *They seized that Martiya who was chief of them;* **imaiy martiyā tyaiy adakaiy avadā [ā]ha^{n}tā yātā adam gaumātam . . . avājanam**, Bh. 4. 80-81, *These (are) the men who were there at that time when I slew Gaumâta;* **ima tya manā kartam pasāva yaθā xšāyaθiya abavam**, Bh. 1. 27-28, *This (is) what (was) done by me after I became king;* **auramazdāmaiy upastām abara yātā ima xšaθ^{r}am ha[ma]dārayai[y]**, Bh. 1. 25-26, *Ahura Mazda bore me aid until I obtained this kingdom;* **avah[ya]rā[diy] auramazdā upastām abara . . . [yaθ]ā naiy arai[ka] āham**, Bh. 4. 62-63, *For this reason Ahura Mazda bore (me) aid, because I was not an enemy;* **mātyamām xšnāsātiy tya adam naiy bardiya amiy**, Bh. 1. 52-53, *That [the people] may not know me, that I am not Bardiya.*

535. *Subjunctive.* The subjunctive is used to indi-

cate that the act or condition expressed by the verb is anticipated.

(1) Such anticipation may be expressed as mere futurity, especially in indefinite relative or temporal clauses; *e. g.*, **tuvam [kā] xšāyaθiya hya aparam āhy martiya [hya] draujana ahatiy hyavā [zū]rakara++ ahatiy avaiy mā dauštā [bīy]ā**, Bh. 4. 67-69, *O thou who shalt be king in the future, whatever man shall be a deceiver or whoever shall be a wrongdoer, be not a friend to these;* **utātaiy yāvā tau[m]ā ahati[y]**, Bh. 4. 77-78, *And as long as thy family shall be.*

(a) In two passages the subjunctive **gaubātaiy** occurs in clauses apparently the same in meaning as many others that have the indicative **gaubataiy**: **kāram hamiθ^{r}iyam hya manā naiy gaubātaiy avam jatā**, Bh. 2. 83-84, *The rebellious army which does (will?) not call itself mine, smite it;* **[ava]m kāram bābiruvi[ya]m jatā hya manā naiy [ga]ubātaiy**, Bh. 3. 85-86, *Smite that Babylonian army which does (will?) not call itself mine.* (Cf. indicative in Bh. 2. 21.)

(2) Closely related to this is the use of the subjunctive in future conditions introduced by **yadiy**; *e. g.*, **yadiy imām ha^{n}dugām apagaudayāhy naiy θāhy [k]āra[hyā] auramazdātay jatā bīyā**, Bh. 4. 57-58, *If thou shalt conceal this record (and) shalt not tell (it) to the people, may Ahura Mazda be a smiter unto thee;* **yadiy kāra pārsa pāta ahatiy hyā duvaiš[ta]m šiyātiš axšatā hauvciy aurā nirasātiy abiy imām viθam**, Dar. Pers. e. 22-24, *If the Persian people shall be protected, welfare for a long time undisturbed will through Ahura Mazda descend upon this royal house.*

(3) The expression of an anticipated action may be

joined with a desire for its accomplishment. Hence the subjunctive expresses a wish; *e. g.*, **dahyāušmaiy duruvā ahatiy**, Bh. 4. 39-40, *May my country be secure.*

(4) In the same way the subjunctive expresses a command; *e. g.*, **mātya vikanāhy . . . avaθāštā pari[ba]rā**, Bh. 4. 71-72, *Thou shalt not destroy* (*them*), *thus thou shalt guard them.*

(5) When an action is anticipated with a view to its prevention or with a fear of its fulfillment, the expression becomes one of negative purpose. Here the subjunctive is introduced by **mātya** (cf. the example of negative command under 4); *e. g.*, **avahyarādiy kāram avājaniyā mātyamām xšnāsātiy**, Bh. 1. 51-52, *For this reason he would slay the people*, "*that they may not know me*"; **avahyarādiy naiy nipištam māt[ya] . . . avahyā paruv θa[dayā tya] manā kartam naiš[im] ima varnavātaiy duruxtam maniyā[taiy]**, Bh. 4. 47-50, *For this reason it* (*is*) *not written, lest to him what has been done by me should seem too much,* (*and*) *it should not convince him,* (*but*) *he should think* (*it*) *false.*

536. *Optative.* The optative occurs but rarely. The following uses are found:

(1) In its proper function the optative expresses a wish. Its negative is **mā**. Thus, **auramazdātay jatā bīyā utātaiy taumā mā bīyā**, Bh. 4. 58-59, *May Ahura Mazda be a smiter to thee, and may there not be to thee a family.* (Cf. the similar expression in Bh. 4. 75-76, where the optative is parallel to the subjunctive and the imperative.) **abiy imām dahyāum mā ājamiyā . . . ha[i]nā**, Dar. Pers. d. 18-19, *May not an evil host come upon this country.*

(2) The optative may be potential; *e. g.*, **naiy āha martiya . . . hya avam gaumātam tyam magum xšaθ^{r}am dītam caxriyā**, Bh. 1. 48-50, *There was not a man who could make this Gaumâta the Magian deprived of the kingdom.* So also with a verb of fearing preceding: **kārašim hacā daršma^{n} atarsa kāram vasiy avājaniyā . . . avahyarādiy kāram avājaniyā**, Bh. 1. 50-52, *The people feared him for his tyranny; he would slay the many; for this reason he would slay the people.*

537. *Imperative* and *Injunctive.* These two moods are used alike in expressing a command, a prayer, or a wish. The negative with the injunctive, as with the optative of like meaning, is **mā**. Examples are: **paraidiy kāra hya hamiθ^{r}iya manā naiy gaubataiy avam jadiy**, Bh. 2. 50-51, *Go, the rebellious army that does not call itself mine, smite it;* **avataiy auramazdā nika^{n}tuv**, Bh. 4. 79-80, *This let Ahura Mazda destroy for thee;* **tya manā kartam varnavatām**, Bh. 4. 42, *Let it convince* (*thee as to*) *what* (*was*) *done by me;* **paraitā avam kāram tyam mādam jatā**, Bh. 2. 20-21, *Go, smite that Median army;* **hacā aniyanā mā [ta]rsam**, Dar. Pers. e. 20-21, *May I not fear an enemy.*

538. *Infinitive.* The infinitive occurs either as complementary to a verb or to express purpose.

(1) Complementary Infinitive: **kašciy naiy adaršnauš ciščiy θastanaiy**, Bh. 1. 53-54, *Any one did not dare to say anything;* **pasāva adam niyaštāyam imām dipim nipištanaiy**, Xerx. Van. 23-25, *Afterwards I commanded to write this inscription.*

(2) Infinitive of Purpose: **ha[m]iθ^{r}[iyā] ha^{n}gmatā paraitā patiš dādaršim hamaranam cartanaiy**, Bh. 2.

43-44, *The rebels came together* (*and*) *went against Dādarshi to engage in battle.*

539. *Participle.* (1) The passive participle (513) is used sometimes merely as a modifying adjective; *e. g.*, **duvarayāmaiy basta adāriy**, Bh. 2. 75, *He was held bound at my court.* Similarly as complementary accusative modifier in such a circumlocution as **dipim naiy nipištām akunauš**, Xerx. Van. 22-23, *He did not have an inscription written.*

(2) The participle in **-ta** occurs also with forms of the verb **ah**, *be*, making a passive construction; *e. g.*, **xšaθ^r^am tya hacā amāxam taumāyā parābartam āha ava adam patipadam akunavam**, Bh. 1. 61-62, *The kingdom which was taken away from our family, this I put in* (*its*) *place;* **yadiy kāra pārsa pāta ahatiy**, Dar. Pers. e. 22, *If the Persian people shall be protected.*

(a) Often, however, the form of **ah** is not expressed; *e. g.*, **avaθāšām hamaranam kartam**, Bh. 3. 8-9, *Then the battle* (*was*) *fought by them.* So also in the case of intransitive verbs, the participle alone may be used as equivalent to an active indicative; *e. g.*, **hamiθ^r^iyā ha^n^gmatā paraitā patiš vivānam**, Bh. 3. 65, *The rebels came together and went against Vivāna.*

3. Tense.

540. *Present.* This tense is used not only of an action or state properly present, but of what belongs to the past and continues into the present; *e. g.*, **VIII manā taumāyā tyaiy paruvam xšāyaθiyā āha^n^ adam navama IX duvitāparanam vayam xšāyaθiyā amahy**, Bh. a. 14-18, *Eight of my family* (*there were*) *who*

were formerly kings; I am the ninth (*9*); *long afore-time we have been* (lit. *are*) *kings.*

541. *Future.* The future relation is expressed usually by the subjunctive (535. 1). A periphrastic future, composed of the optative of **bū**, *be*, with a verbal noun, has been mentioned above (484); *e. g.*, **auramazdā θuvām dauštā bīyā**, Bh. 4. 55-56, *May Ahura Mazda be a friend to thee.* On **jīvahyā** as a possible original **syo**-future in Bh. 5. 19-20, 35, see 484.

542. *Imperfect* and *Aorist.* There seems to have been usually no clear distinction in meaning between these two tenses; *e. g.*, **hauv āyasatā uvāipašiyam akutā hauv xšāyaθiya abava**, Bh. 1. 47-48, *He seized* (*the power and*) *made* (*it*) *his own possession; he became king;* **avadā hamaranam akunauš**, Bh. 2. 23, *Here he engaged in battle;* **pasāva hamaranam akumā**, Bh. 2. 67-68, *Afterwards we engaged in battle.*

543. In a few places, and perhaps, as Meillet suggests (*Gram.* 237), in formulaic expressions representing a usage earlier than the time of the inscriptions, there seems to be a difference of signification between the two tenses, as in the following example the aorist is used of the creation, an event long since accomplished, and the imperfect of the advancement of Darius to the throne, an event the effect of which is of uncertain duration and is closely connected with the time of the record: **baga vazarka auramazdā hya imām būmim adā hya avam asmānam adā hya martiyam adā hya šiyātim adā martiyahyā hya dārayavaum xšāyaθiyam akunauš**, Dar. NRa. 1-6, *A great god is Ahura Mazda, who created this earth, who created yonder heaven, who created man, who created*

welfare for man, who made Darius king; **auramazdā vazarka hya maθišta bagānām hauv dārayavaum xšāyaθiyam adadā**, Dar. Pers. d. 1-3, *The great Ahura Mazda, who (is) the greatest of the gods, he made Darius king.*

544. *Perfect.* The only example of a perfect form in the inscriptions happens to be a potential optative (**caxriyā**, Bh. 1. 50), which does not show the tense signification. A construction similar to that of the perfect passive of other languages, expressing the result of a completed act or a finished process (cf. 359. 3), is made by combining the passive participle with a form of the verb **ah**, *be; e. g.*, **aniyašciy vasiy astiy kartam**, Bh. 4. 46-47, *Much else was done;* **avaišām avā naiy astiy kartam**, Bh. 4. 51-52, *By these nothing was thus done.* Frequently the form of **ah** is omitted. (See 539. 2. a.)

4. Auxiliary Verbs.

545. The examples given in the preceding paragraph illustrate the use of **ah**, *be*, as virtually an auxiliary verb. **kar**, *make*, also sometimes has an auxiliary function; *e. g.*, **dipim naiy nipištām akunauš**, Xerx. Van. 22-23, *He did not have* (lit. *make*) *an inscription written;* **hya avam gaumātam tyam magum xšaθ^{r}am dītam caxriyā**, Bh 1. 49-50, *Who could make that Gaumâta the Magian deprived of the kingdom.*

5. Verbal Prefixes.

546. Certain adverbial forms originally independent came, in the development of the derived languages, to be so closely connected with the verb as to lose their independence and serve only as prefixes.

Such in Ancient Persian are: **ā**, *to;* **atiy**, *beyond;* **apa**, *away;* **ava**, *down;* **ud (us)**, *up;* **niy**, *down;* **nij**, *away;* **patiy**, *at;* **parā**, *forth;* **pariy**, *about;* **fra**, *forth;* **viy**, *away;* **ham**, *together.* Of these **patiy**, **parā**, and **pariy** occur also as prepositions, and **patiy** (if indeed this is the same word; see Tolman *Lex.* 108) was sometimes used as an independent adverb. The prepositions **abiy**, *to;* **upā**, *to;* and **upariy**, *above*, seem to be verbal prefixes in certain mutilated passages.

547. The meaning of the compound may be merely a literal combination of the meanings of the verb and the prefix; *e. g.*, **niy**, *down*, with **ar**, *come*, in **šiyātiš . . . nirasātiy abiy imām viθam**, Dar. Pers. e. 23-24, *Welfare will come down upon this house;* **parā**, *forth*, with **i**, *go*, in **avaθāšaiy aθaham paraidiy**, Bh. 2. 50, *Thus I said to him, "Go forth";* **ham**, *together*, with **gam**, *come*, in **hamiθ^{r}iyā ha^{n}gmatā**, Bh. 2. 57-58, *The rebels came together.*

548. In some instances the prefix seems to make little, if any, difference of meaning; *e. g.*, **yātā adam arasam mādam**, Bh. 2. 63, *Until I came to Media*, beside **yaθā mādam parārasam**, Bh. 2. 65, *When I came to Media.*

549. Sometimes the compound is used in a secondary or metaphorical sense; *e. g.*, **ya[diy] . . . paribarāh[i]diš**, Bh. 4. 72-74, *If thou shalt guard them*, beside **tyai[y] gāθum bara^{n}tiy**, NRa. 41-42, *Who bear the throne;* **ima stānam hauv niyaštāya ka^{n}tanaiy**, Xerx. Van. 20-21, *He commanded to dig out this place*, beside **avadā aištatā**, Bh. 1. 85, *There he halted* (*stood*).

550. The verbal prefix may be used to strengthen or emphasize a meaning belonging to the simple

verb; *e. g.*, from gud, *hide*, with apa-, mā apagaudaya, Bh. 4. 54, *Do not hide* (*it*) *away;* from had, *sit* (causative, *put down*), with niy-, adamšim gāθavā niyašādayam, NRa. 35-36, *I established it on* (*its*) *foundation.*

551. In some places the prefix seems to be used to mark the terminative as opposed to the cursive or durative action of the verb (359. 5); *e. g.*, vašnā auramazdāha ima xšaθ^{r}am dārayāmiy, Bh. 1. 26, *By the grace of Ahura Mazda I hold* (= *am holding*) *this kingdom*, beside auramazdāmaiy upastām abara yātā ima xšaθ^{r}am ha[ma]dārayai[y], Bh. 1. 25-26, *Ahura Mazda bore me aid until I obtained this kingdom.*

552. Two verbs show a combination of two prefixes, jan with ava + ā, and bar with patiy + ā; *e. g.*, kāram avājaniyā, Bh. 1. 52, *He would slay* (*smite down*) *the people;* adam tya parāba[rta]m patiyābaram, Bh. 1. 67-68, *I brought back what* (*had been*) *taken away.*

6. Direct and Indirect Quotations.

553. A very large majority of the object clauses following verbs of saying or perceiving are in the form of direct quotations. This is everywhere the case after the very common verb θah. Examples after other verbs are: hauv kārahyā avaθā [a]durujiya adam bardiya amiy, Bh. 1. 38-39, *He thus lied to the people, "I am Bardiya";* yadiy avaθā maniyāhay hacā aniyanā mā [ta]rsam imam pārsam kāram pādiy, Dar. Pers. e. 19-22, *If thus thou shalt think, "May I not fear an enemy," protect this Persian people.*

554. The verb of saying or perceiving may be

merely implied; *e. g.*, **avahyarādiy kāram avājaniyā mātyamām xšnāsātiy tya adam naiy bardiya amiy**, Bh. 1. 51-53, *For this reason he would slay the people, "that they may not know me that I am not Bardiya."*

The use of **tya** to introduce such a clause is parallel with the original use of *that* introducing a substantive clause in English, *i. e.*, the clause is in apposition with the pronoun. It may be so regarded in **kārahy[ā naiy] azdā abava tya bardiya avajata**, Bh. 1. 31-32, *It was not known to the people that Bardiya (was) slain.* But the conjunctive use of **tya** becomes more evident in the sentence cited above, **mātyamām xšnāsātiy tya adam naiy bardiya amiy**, Bh. 1. 52-53, *That they may not know me, that I am not Bardiya.*

555. What seems to be an indirect quotation introduced by **yaθā** occurs in Bh. 4. 44, **auramazd[ām upava]rtaiy[a]iy[a] yaθā ima hašiyam naiy duruxtam adam akuna[vam]**, *I appeal to Ahura Mazda (to witness) that this (is) true and not false (which) I did.*

CHAPTER XVI.

USES OF THE PRONOUN.

1. Personal.

556. THE pronoun of the first person is almost always expressed with a verb of the first person, perhaps to emphasize the authority of the king or chief who makes the statement; *e. g.*, **ava adam patipadam**

akunavam, Bh. 1. 62, *This I put in (its) place;* **avaθā aθaha adam bardiya amiy**, Bh. b. 4-5, *Thus he said, "I am Bardiya."* But the pronoun may be omitted, as **pasāvašim arbairāyā uzmayāpati[y] akunavam**, Bh. 2. 90-91, *Afterwards I put him on a cross in Arbela.* The omission of the pronoun with a verb of the first person, however, occurs usually where the pronoun has been expressed with the verb of a preceding clause, as **pasāva adam kāram maškāuvā avākanam aniyam ušabārim akunavam aniyahyā asam frānayam**, Bh. 1. 86-87, *Afterwards I placed my army on floats of skins; one part I set on camels, for the other I brought horses;* **[ava]hyarādiy vayam haxāmanišiyā θahyāmahy hacā paruv[iyata ā]mātā amahy**, Bh. 1. 6-8, *Therefore we are called the Achæmenides; from long ago we have been of ancient lineage.*

557. In each of the places where **vayam** is used it refers to the royal house, as in the sentence just quoted. But, without the pronoun, **pasāva hamaranam akumā**, Bh. 2. 67-68, *Afterwards we engaged in battle;* **tigrām viyatarayāmā**, Bh. 1. 88, *We crossed the Tigris.*

558. The pronoun of the second person, as subject, is expressed only in the oft-repeated formula **tuvam kā** + a relative clause + an imperative or subjunctive; *e. g.*, **tuvam kā x[šāyaθiya h]ya aparam āhy hacā draugā daršam patipayauvā**, Bh. 4. 37-38, *Thou who shalt be king in the future, protect thyself strongly from deceit.* But **ya[diy] imām di[pim] vainā[hy] imaivā patikarā naiydiš vikanāhy**, Bh. 4. 72-73, *If thou shalt see this inscription or these sculptures (and) shalt not destroy them.*

559. In the third person the verb occurs either with

or without a pronominal subject, the pronoun, when used, preserving its demonstrative force; *e. g.*, **hauv xšāyaθiya abava**, Bh. 1. 47-48, *He (= this man) became king;* **avaθā xšaθ^{r}am agarbāyatā**, Bh. 1. 42-43, *Then he seized the kingdom.*

2. Demonstrative.

560. To be classed with the demonstratives, and yet serving merely as unemphatic pronouns of the third person, are certain enclitic forms occurring only in oblique cases, as **-dim, -diš** (229. b), **-ša, -šaiy, -šām, -šim, -šiš**. The distinction between these and pronouns of demonstrative force is evident in such examples as the following: **auramazdā [ya]θā avaina imām būmim . . . pasāvadim manā frābara**, Dar. NRa. 31-33, *Ahura Mazda, when he saw this earth, afterwards gave it to me;* **hauv āθ^{r}[i]na basta anayatā a[biy m]ām adamšim avājanam**, Bh. 1. 82-83, *This Âθ^{r}ina was led to me bound; I slew him;* **avam adam frāišayam arminam avaθāšaiy aθaham**, Bh. 2. 50, *Him I sent forth to Armenia; thus I said to him.*

561. The pronoun **a** is used of what is near the speaker, occurring always with **būmī**, *earth*, except in Bh. 4. 47, where it belongs to **dipi**, *inscription;* thus, **adam xšayāršā . . . xšāyaθiya ahyāyā būmiyā vazarkāyā**, Xerx. Pers. a. 6-9, *I (am) Xerxes, king of this great earth;* **aniyašciy vasiy astiy kartam ava ahyāyā d[i]p[iy]ā naiy nipištam**, Bh. 4. 46-47, *Much else was done; that (is) not written on this inscription.*

562. **aita** is used to refer to what has just preceded; as, **aita xšaθ^{r}am tya gaumāta hya maguš adīnā ka^{n}būjiyam**, Bh. 1. 44-45, *This kingdom which Gaumâta the Magian took from Cambyses* (*i. e.*, the kingdom

just mentioned in l. 41); **aita adam yānam jadiyāmiy**, Dar. Pers. d. 20-21, *This favor* (*i. e.*, the preceding prayer) *I ask.*

(a) No distinction seems to be made between **aita** and **ava** in Dar. NRa. 48-50, **aita t[ya] kartam ava visam vašnā auramazdāhā akunavam**, *This* (*is*) *what* (*was*) *done; all this by the grace of Ahura Mazda I did.*

563. **ana** is found only in Dar. Pers. e. 8-9, **hadā anā pārsā kārā**, *With the help of this Persian army.*

564. **ava** and **ima**. The ancient distinction between **ava**, referring to what is remote, and **ima**, to what is near, is most faithfully preserved in the oft-repeated religious phrase used of the creation; as, **baga vazarka auramazdā hya imām būmim adā hya avam asmānam adā**, Xerx. Pers. a. 1-2, *A great god* (*is*) *Ahura Mazda, who created this earth, who created yonder heaven.* But in many other phrases also this difference of the two pronouns is observable; *e. g.*, **avam kāram jadiy . . . kāra hya manā avam kāram tyam hamiθ^r^iyam aja^n^**, Bh. 3. 14-15, 17-18, *Smite that army; my army smote that rebellious army;* so repeatedly of the rebel armies; but **imam pārsam kāram pādiy**, Dar. Pers. e. 21-22, *Protect this Persian army* (*people*). **[a]vam bardiyam**, Bh. 1. 31, **avam gaumātam**, Bh. 1. 49-50, **avam vahyazdātam**, Bh. 3. 47-48, are common references to the king's enemies; **avaiy mā dauštā [bīy]ā**, Bh. 4. 69, *Be not a friend to those* (*i. e.*, the deceiver and the wrongdoer); **tyaiy paruvā xšāyaθ[iyā] . . . avaišām avā naiy astiy kartam**, Bh. 4. 50-52, *Who* (*were*) *the former kings, by those nothing was thus done.* But **hya imam tacaram akunauš**, Dar. Pers. a. 5-6, *Who built this pal-*

ace; **imam duvarθim**, Xerx. Pers. a. 12, *This colonnade*, **hya aparam imām dipi[m] patiparsāhy**, Bh. 4. 41-42, *Who shalt hereafter read this inscription;* **imām ha^{n}dugām**, Bh. 4. 54-55, *This record;* **imām dahyāum**, Dar. Pers. d. 15, *This country* (*i. e.*, Persia); **imām viθam**, Dar. Pers. e. 24, *This royal house.*

565. **ava**, again, is used frequently in resuming what has already been mentioned, as **xšaθ^{r}am tya hacā amāxam taumāyā parābartam āha ava adam patipadam akunavam**, Bh. 1. 61-62, *The kingdom which was taken away from our family, this I put in* (*its*) *place;* **tya manā kartam utā tyamaiy piθ^{r}a kartam avašciy auramazdā pātuv**, Xerx. Pers. a. 19-20, *What* (*was*) *done by me and what* (*was*) *done by my father*, (*all*) *this let Ahura Mazda protect.* But with **ima** we never find this resumptive force. It points either forward or backward; *e. g.*, Bh. 1. 13, introducing the list of countries, **imā dahyāva tyā manā [pat]iyāiša^{n}**, *These* (*are*) *the countries which came to me;* and, ib. 1. 18, after the completion of the list, we find again **imā dahyāva tyā manā pati[yāisa^{n}]**.

566. **iyam** occurs in each of the inscriptions Bh. b—k, to direct attention to the accompanying figure, **iyam gaumāta, iyam āθ^{r}ina**, etc., **adurujiya**, *This Gaumâta, this Âθ^{r}ina*, etc., *lied.* The singular is used also in connection with a plural; *e. g.*, **iyam sakā**, Dar. NRxv., *This the Scythians;* **iyam maciyā**, Dar. NRxxix., *This the Maxyes.* Elsewhere also **iyam** applies to what is near; *e. g.*, **iyam dahyāuš pārsa tyām manā auramazdā frābara**, Dar. Pers. d. 6-8, *This* (*is*) *the country, Persia, which Ahura Mazda gave me.* It is equivalent to **ima** in Dar. Sz. c. 8-10, **adam ni[yaš]tāyam imām [yauviyā]m ka^{n}tanaiy . . .**

pa[sāva] iyam yauviyā [akāniy], *I commanded to dig this canal; afterwards this canal was dug.*

567. **hauv.** This pronoun always points to something preceding, either by way of pronominal repetition of the preceding noun, or as a modifier of the noun itself repeated, or merely as a demonstrative referring to what has already been mentioned; *e. g.*, **I martiya arxa nāma . . . hauv udapatatā bābirauv,** Bh. 3. 78-79, *One man, Arkha by name, he rose up in Babylon;* **pasāva hauv vidarna hadā kārā ašiyava,** Bh. 2. 21-22, *Afterwards this Hydarnes* (mentioned in l. 19) *with the army went away;* **hauv kārahyā avaθā [a]durujiya,** Bh. 1. 38-39, *He* (Gaumāta, l. 36) *thus deceived the people.*

3. Indefinite.

568. The indefinite, made by the addition of the enclitic **-ciy** to the interrogative **ka**, occurs only in the nominative singular masculine and the accusative singular neuter, each time in a negative clause; *e. g.*, **kašciy naiy adaršnauš cišciy θastanaiy,** Bh. 1. 53-54, *Any one did not dare to say anything.*

569. The enclitic particle **-ciy** with a generalizing force is added also to **aniya**, *other*, **ava**, *this*, **paruvam**, *formerly*, and **hauv**, *this; e. g.*, **[ap]imaiy aniyašciy vasiy astiy kartam,** Bh. 4. 46-47, *Still much else was done by me;* **avašciy auramazdā pātuv,** Xerx. Pers. a. 20, (*All*) *this let Ahura Mazda protect;* **yaθā paruvamciy avaθā adam akunavam,** Bh. 1. 63, *As* (*it was*) *formerly, so I made* (*it*)*;* **hauvciy aurā nirasātiy abiy imām viθam,** Dar. Pers. e. 23-24, *This* [*welfare*] *will through Ahura descend upon this royal house.*

570. The particle **kā** is used to give to a preceding

tuvam a general or indefinite meaning; *e. g.*, **tuvam kā hya aparam imām dipi[m] patiparsāhy**, Bh. 4. 41-42, *Thou whoever shalt examine this inscription in the future.*

4. Relative.

571. The two relatives **tya** and **hya** (352, 353) are used (1) to introduce a true relative clause; (2) to join to a noun a modifying adjective, case-form, phrase, or appositive. In the latter use the pronoun became virtually a definite article.

(1) Examples of the true relative are: **xšaθ^{r}am tya hacā amāxam taumāyā parābartam āha ava adam patipadam akunavam**, Bh. 1. 61-62, *The kingdom which was taken away from our family, this I put in (its) place;* **baga vazarka auramazdā hya imām būmim adā**, Xerx. Pers. a. 1-2, *A great god (is) Ahura Mazda, who created this earth.*

(2) The use of the pronoun as a definite article is illustrated in the following:

(a) With adjective modifier: **paθim tyām rāstām mā avarada**, Dar. NRa. 58-60, *Do not leave the true path;* **pasāva kāra hya bābiruviya haruva abiy avam nadi^{n}-tabairam ašiyava**, Bh. 1. 79-80, *Afterwards the whole Babylonian army went over to that Nadintu-Bēl.*

(b) With modifying case-form: **kāram tyam fravartaiš adam ajanam**, Bh. 2. 68-69, *The army of Phraortes I smote;* **xšaθ^{r}am tya bābirauv hauv agarbāyatā**, Bh. 1. 80-81, *The kingdom in Babylon he seized;* **kāra hya manā ava[m k]āram tyam hamiθ^{r}iyam aja^{n}**, Bh. 2. 35-36, *My army smote that rebellious army.*

(c) With modifying phrase: **kāra pārsa hya v^{i}θā-**

patiy hacā yadāyā fratarta, Bh. 3. 26, *The Persian army in the palace departed from their loyalty.*

(d) With an appositive: adam . . . avam gaumātam tyam magum avājanam, Bh. 1. 56-57, *I slew that Gaumâta the Magian;* adam bardiya amiy hya kūrauš puθ^r^a ka^n^būjiyahyā br[ā]tā, Bh. 1. 39-40, *I am Bardiya the son of Cyrus, the brother of Cambyses* (hya not repeated with the second appositive).

572. Since the verb ah, *be*, may be omitted in the relative clause (cf. 539. 2, a), we cannot always be sure which of the two uses of the relative we have. In Bh. 2. 30-31 the pronoun seems to serve in both functions at once: kāra hya hamiθ^r^iya manā naiy gaubataiy, *The rebellious army which does not call itself mine.*

573. The relative with a modifying word may occur with the substantive understood; *e. g.*, adam tya parāba[rta]m patiyābaram, Bh. 1. 67-68, *I brought back that taken away.* Even with the true relative clause, the antecedent may be omitted; as, patikarā dīdiy tyai[y] gāθum bara^n^tiy, Dar. NRa. 41-42, *Look at the pictures (of those) who are bearing the throne.*

5. Adverbs from Pronominal Stems.

574. The demonstrative or relative notion may occur in adverbial expressions. Hence certain adverbs are made on the same stems as the pronouns of these classes; thus, from demonstratives ada, *then*, and with suffix -kaiy (cf. Grk. ποι from I. E. *ko) adakaiy, *then*, avā, *thus*, avaθā, *thus*, *then*, avadā, *there*, idā, *here.* Sometimes an adverb is made by a combination of a pronominal case form with another word; as, avaparā, *there before* (ava, acc. sg. + parā), ava-

hyarādiy, *therefore* (avahya for loc. sg. + *rādiy, loc. sg.), pasāva, *afterwards* (pasā + acc. sg. ava), hyāparam, *thereafter* (hyā, abl. sg. n. + *para). So also the conjunctive adverb mātya (580).

575. The original Indo-European relative *yo survived in Ancient Persian only in the relative adverbial forms; *e. g.*, yātā, *while*, yaθā, *when*, yadiy, *if;* also the locative yanaiy, *whereon*.

576. Connected with the interrogative-indefinite pronoun is the adverb citā, *so long*.

577. Certain of these adverbs occur as correlatives; *e. g.*, yaθā paruvamciy avaθā adam akunavam, Bh. 1. 63, *As* (*it was*) *formerly, so I made* (*it*)*;* pasāva vaumisa citā mām amānaya arminiya[iy] yātā adam arasam mādam, Bh. 2. 62-63, *Afterwards Vaumisa so long awaited me in Armenia until I came to Media.*

CHAPTER XVII.

NEGATIVES, CONNECTIVES, ENCLITICS.

1. Negatives.

578. OF the two Ancient Persian negatives, mā is used with either the optative or the injunctive to express a prohibition, naiy in all other negative expressions; *e. g.*, utātaiy taumā mā bīyā, Bh. 4. 58-59, *And may there not be unto thee a family;* mā apagaudaya, Bh. 4. 54, *Do not conceal* (*it*)*;* avam kāram tyam mādam jatā hya manā naiy gaubataiy, Bh. 2. 20-21, *Smite that Median army which does not call itself mine;* yaθā gaumāta hya maguš v'θam tyām amāxam naiy parābara, Bh. 1. 70-71, *That Gaumâta the Ma-*

gian might not take away our royal house; ya[diy] . . . naiydiš vikanāhy, Bh. 4. 72-73, *If thou shalt not destroy them.*

579. Both **mā** and **naiy** may be repeated in the sense of *not . . . nor*, or *neither . . . nor; e. g.*, **abiy imām dahyāum mā ājamiyā mā ha[i]nā mā dušiyāram [m]ā drauga**, Dar. Pers. d. 18-20, *May not an evil host, nor famine, nor deceit come upon this country;* **naiy āha martiya naiy pārsa naiy māda naiy amāxam taumāyā kašciy**, Bh. 1. 48-49, *There was not a man, neither a Persian nor a Median, nor any one of our family.*

580. **mātya**, a combination of **mā** and **tya** (in its conjunctive use), is used with a subjunctive in expressions of negative purpose, and in negative commands; *e. g.*, **mātyamām xšnāsātiy**, Bh. 1. 52, *That [the people] may not know me;* **mātya vikanāhy**, Bh. 4. 71, *Thou shalt not destroy (them).*

581. After **mātya**, **naiy** may occur where the meaning is *lest . . . not; e. g.*, **māt[ya] . . . avahyā paruv θa[dayā tya] manā kartam naiš[im] ima varnavātaiy**, Bh. 4. 48-49, *Lest to him what has been done by me should seem too much (and) it should not convince him.*

2. Coördination.

582. The Ancient Persian has three conjunctions used to connect coördinate elements of a sentence, two copulative, **utā** and **-cā**, and one alternative, **-vā**. **-cā** is a weaker connective than **utā** and is not found between clauses. Each of these may be repeated with correlative force: **utā . . . utā**, **-cā . . . -cā**, *both . . . and;* **-vā . . . -vā**, *either . . . or.*

Examples of these uses are the following: **adam kāram pārsam utā mādam frāišayam**, Bh. 2. 81-82,

I sent forth the Persian and Median army; avadā aištatā utā abiš nāviyā āha, Bh. 1. 85-86, *There he halted and thereby was a flotilla;* abicariš gaiθāmcā māniyamcā v^{i}θ^{a}b^{a}iš^{a}c^{a}a, Bh. 1. 64-65, *The revenue* (?) *and the personal property and the estates and the royal residences* (*I restored*)*;* ya[diy] imām di[pim] vainā[hy] imaivā patikarā, Bh. 4. 72-73, *If thou shalt see this inscription or these sculptures;* martiya [hya] draujana ahatiy hyavā [zū]rakara++ ahatiy, Bh. 4. 68-69, *Whatever man shall be a deceiver or whoever shall be a wrongdoer;* pasāva gaumāta hya maguš adīnā ka^{n}būjiyam utā pārsam utā mādam utā aniyā dahyāva, Bh. 1. 46-47, *Afterwards Gaumâta the Magian took from Cambyses both Persia and Media and the other provinces;* adam kāram gāθavā avāstāyam pārsam[c]ā mādam[c]ā utā aniyā dahyāva, Bh. 1. 66-67, *I established the state on* (*its*) *foundations, both Persia and Media, and the other provinces;* [tya]šām hacāma aθahya xšapavā raucapativā ava akunavaya^{n}tā, Bh. 1. 19-20, *What was commanded to them by me either by night or by day, this they did.*

583. Similarly the negative has connective force in naiy . . . naiy, *neither . . . nor; e. g.*, naiy pārsa naiy māda naiy amāxam taumāyā kašciy, Bh. 1. 49, *Neither a Persian nor a Median nor any one of our family.*

584. Demonstrative pronouns and adverbs serve often to link clauses without conjunctions; *e. g.*, avadā adāraya hauv duvitīyama udapatatā, Bh. 3. 23-24, *Here he dwelt; he was the second to rise against me;* kāra hya nadi^{n}tabairahyā tigrām adāraya avadā aištatā, Bh. 1. 85, *The army of Nidintu-Bêl held the Tigris; there he halted.*

585. But asyndeton is common; *e. g.*, adam kāram maškāuvā avākanam aniyam ušabārim akunavam aniyahyā asam frānayam aura[maz]dāmaiy upas[t]ām abara, Bh. 1. 86-88, *I placed my army on floats of skins; one part I set on camels; for the other I brought horses; Ahura Mazda bore me aid.*

3. Enclitics.

586. Under the discussion of the subject of accent (118) it was pointed out that from Indo-European times, in the emphasizing of certain parts of a sentence to the neglect of others, the words that fell in the unemphatic positions might lose their accent and become proclitics or enclitics. The survival of such unaccented words in Ancient Persian is evident from the omission of the word-divider in many places between certain prepositions, adverbs, conjunctions, particles, or pronouns, and the words with which they are closely connected in sense. Often also final -ā is written -a before an enclitic, as manacā for manā + cā, avadašim for avadā + šim (but probably originally *mana, *avada; cf. 61, 310). Yet we find hacāma, avaθāšām, etc. Furthermore, the enclitic value of these unaccented words is sometimes indicated by the treatment of finals before them; see 66. 1. a.; 227, 229, b.

587. We have but few examples of the union of prepositions with following words, and these are usually classed as adverbial compounds rather than examples of the proclitic preposition. Such are fraharavam, *in all* (fra + *harava = haruva); patipadam, *in its own place* (patiy + *pada); and, with vowel contraction, pasāva, *afterwards* (pasā + ava).

588. Of prepositions the postpositive **-ā**, *in*, **-patiy**, *at*, and **-parā**, *along*, are joined as enclitics to the preceding word; *e. g.*, **drauga dahyauvā vasiy abava**, Bh. 1. 34, *There was deceit to a great extent in the land;* **avaparā ašiyava**, Bh. 2. 72, *Along there he went;* **avadašiš uzmayāpatiy akunavam**, Bh. 3. 52, *Here I put them on the cross.* But **patiy** is also written separately, as, **māhyā jiyamnam patiy**, Bh. 2. 61-62, *At the end of the month.*

589. The adverb **patiy** occurs sometimes as an independent word, sometimes as enclitic; *e. g.*, **patiy θ^{r}itīyam ha[m]iθ^{r}[iyā] ha^{n}gmatā**, Bh. 2. 43, *Again for the third time the rebels came together;* **tyapatiy kartam vainataiy naibam**, Xerx. Pers. a. 15-16, *What work, again, seems beautiful.*

590. The conjunctions **-cā** and **-vā** are enclitic; *e. g.*, **vašnā auramazdāhā manacā**, Dar. Pers. d. 9-10, *By the grace of Ahura Mazda and of me;* **yadiy im[ā]m dipim imaivā patikarā vaināhy**, Bh. 4. 77, *If thou shalt see this inscription or these sculptures.*

591. The particle **-ciy** is always enclitic; *e. g.*, **kašciy naiy adaršnauš cišciy θastanaiy**, Bh. 1. 53-54, *Any one did not dare to say anything.*

592. Of the forms of the first personal pronoun, **mām**, **ma**, and **maiy** occur as enclitics, **mām**, however, only once, Bh. 1. 52, **mātyamām xšnāsātiy**, *That [the people] may not know me.* **ma** is regularly joined to **hacā**, as **yaθāšām hacāma aθahya**, Bh. 1. 23-24, *As it was commanded to them by me.* **-maiy** is very frequent; *e. g.*, **auramazdāmaiy upastām abara**, Bh. 2. 24-25, *Ahura Mazda bore me aid.* So also in the second person, **-taiy (-tay)**; *e. g.*, **hauvtaiy gastā mā θadaya**, NRa. 57-58, *May this not seem to thee repugnant.*

593. The forms of the unemphatic pronoun of the third person are almost always enclitic; *e. g.*, **avaθāšaiy aθaham**, Bh. 2. 50, *Thus I said to him;* **pasāvadim manā frābara**, Dar. NRa. 33, *Afterwards he gave it to me;* **naiydiš vikanāhy**, Bh. 4. 73, [*If*] *thou shalt not destroy them;* **[a]damšām xšāyaθiya āham**, Bh. 1. 14, *I was king of them;* **avadašim avājanam**, Bh. 1. 59, *Here I smote him;* **avadašiš uzmayāpatiy akunavam**, Bh. 3. 52, *Here I put them on the cross.* So also **-ša**, abl. sg., in **hacā avadaša**, as **hacā avadaša kāram āyasatā**, Bh. 3. 42-43, *From thence he took an army.*

(a) Only **diš** occurs as an independent word, and that in but three places, Bh. 4. 34, 35, 36.

CHAPTER XVIII.

WORD ORDER.

594. THE statement of certain and definite rules for word order in Ancient Persian is rendered difficult by the meagerness of the data upon which our conclusions are based. Many word groups were doubtless made according to the formulas of official phraseology, while in other groups, as we shall see, there was allowed a considerable latitude of arrangement, according to the relation of the parts and the degree of emphasis belonging to each.

1. Nouns in Apposition.

595. A proper name commonly precedes its appositive with or without a connecting **tya** or **hya** (571);

e. g., **dārayavauš xšāyaθiya**, Bh. 1. 1 (et passim), *Darius the king;* **gaumāta hya maguš**, Bh. 1. 44, *Gaumâta the Magian.* With **martiya**, the proper name follows with **nāma**, as **I martiya maguš āha gaumāta nāma**, Bh. 1. 36, *There was one man, a Magian, Gaumâta by name.* Appositives are often separated by the verb, as in the sentence just quoted.

596. With **nāma (nāmā)** in other places we find usually the name first and the explanatory word last in the phrase, thus: **sika[ya]uvatiš nāmā didā nisāya nāmā dahyāuš**, Bh. 1. 58-59, (*There is*) *a stronghold, Sikayauvati by name,* (*there is*) *a province, Nisâya by name;* **[vi]darna nāma pārsa manā ba^{n}daka**, Bh. 2. 19-20, *Hydarnes by name, a Persian, my subject.*

2. The Noun and Its Modifier.

597. The Adjective Modifier. Demonstrative pronouns, adjectives following the pronominal declension, and numerals regularly precede their substantives; *e. g.*, **avam kāram tyam hamiθ^{r}iyam aja^n**, Bh. 2. 25-26, [*My army*] *smote that rebellious army;* **hya aniya kāra pārsa**, Bh. 3. 32, *The rest of the Persian army;* **bāgayādaiš māhyā X raucabiš**, Bh. 1. 55-56, *Ten days in the month Bâgayâdi;* **aivam parūnām xšāyaθiyam**, Xerx. Pers. a. 4-5, *One king of many;* **I martiya maguš**, Bh. 1. 36, *One man, a Magian.* In one place, where a total is given at the end of a list, the numeral follows, **fraharavam dahyāva XXIII**, Bh. 1. 17, *Provinces in all twenty-three.*

598. All other adjectives follow the substantives with or without **tya** or **hya** (571); *e. g.*, **xšāyaθiya vazarka**, Bh. 1. 1 (et passim), *The great king;* **kāram pārsam utā mādam frāišayam**, Bh. 2. 81-82, *I sent*

forth the Persian and Median army; kāra hya bābiruviya haruva, Bh. 1. 79-80, *The whole Babylonian people.*

599. Dependent Case Forms. A modifying genitive commonly precedes, but occasionally follows, the noun to which it belongs; *e. g.*, hya kūrauš puθ^ra, Bh. 1. 39, *The son of Cyrus;* hauv mart[iya] hya avahyā kārahyā maθ[išta ā]ha, Bh. 3. 70, *This man who was chief of that army;* xšāyaθiya xšāyaθiyānām, Bh. a. 1-2, *King of kings;* VIII manā taumāyā, Bh. a. 14-15, *Eight of my family.* The genitive usually follows when it is connected with its substantive by tya; so also sometimes with hya; *e. g.*, kāra hya manā avam kāram tyam vahyazdātahya ajaⁿ, Bh. 3. 38-39, *My army smote that army of Vahyazdâta.* In one place an adverb intervenes between a genitive modifier and its noun, pār[sa]h[yā] martiyahyā dūraiy aršt[i]š parāgmatā, Dar. NRa. 43-45, *The spear of a Persian man has gone forth afar.*

600. A modifying locative usually follows the noun to which it belongs; *e. g.*, xšāyaθiya pārsaiy, Bh. 1. 2, *King in Persia;* dahyāuš mādaiy, Bh. 2. 28, *A province in Media.* But we find also adam imaniš amiy uvajaiy xšāyaθiya, Bh. f. 3-7, *I am Imanish, king in Susiana.*

601. The Relative Clause. The relative clause follows the noun to which it belongs; *e. g.*, avam kāram hya dārayavahauš xšāyaθiyahyā gaubataiy, Bh. 3. 58-59, *That army which calls itself of Darius the king.* But the antecedent may be taken over into the relative clause; *e. g.*, tyaišaiy fratamā martiyā anušiyā āhaⁿtā, Bh. 1. 57-58, *What foremost men were his allies.* Cf. ma[r]tiyā tyaišaiy fratamā anušiyā

āha^{n}tā, Bh. 2. 77, *The men who were his foremost allies.*

3. Subject, Complement, and Verb.

602. The usual order of the Ancient Persian sentence is· (1) Subject, (2) Object or Predicate Nominative, (3) Verb. The indirect object may precede or follow the direct. The following are examples of the normal order: **auramazdā xšaθ^ram manā frābara**, Bh. 1. 60-61, *Ahura Mazda gave me the kingdom;* **auramazdāmaiy upastām abara**, Bh. 1. 55, *Ahura Mazda bore me aid.* (On the position of **-maiy** see 611).

603. Very rarely, except in the oft-repeated introductory formula with **θātiy**, *says*, do we find the verb preceding its subject; so, **θātiy dārayavauš**, Bh. 1. 6, (et passim), *Says Darius;* **naiy āha martiya**, Bh. 1. 48, *There was not a man* (where **āha** denotes existence); **abiy imām dahyāum mā ājamiyā mā ha[i]nā mā dušiyāram [m]ā drauga**, Dar. Pers. d. 18-19, *May there come upon this land neither an evil host nor famine nor deceit.*

604. The direct object, especially when the emphasis falls on it, may precede the subject; *e. g.*, **avam nadi^{n}tabairam adam bābirauv avāja[nam]**, Bh. 2. 4-5, *That Nadintu-Bēl I slew in Babylon.* So often with an imperative in a prayer, as **imām dahyāum auramazdā pātuv**, Dar. Pers. d. 15-16, *This country let Ahura Mazda protect;* **aitamaiy auramazdā dadātuv**, Dar. NRa. 54-55, *This let Ahura Mazda give me.*

605. The object is found more rarely after the verb; *e. g.*, **v^{i}štāspa āyasatā avam kāram**, Bh. 3. 4, *Hystaspes took that army.* Of two objects, one may precede and the other follow the verb; *e. g.*, **vivānam**

jatā utā avam kāram, Bh. 3. 58, *Smite Vivāna and that army.* But the two accusatives (one of the thing, the other of the person) both precede in aita adam auramazdām jadiyāmiy, Dar. NRa. 53-54, *This I pray of Ahura Mazda.*

606. The predicate nominative, whether substantive or adjective, always precedes the verb; *e. g.*, hauv xšāyaθiya abava, Bh. 1. 47-48, *He became king;* [a]damšām xšāyaθiya āham, Bh. 1. 14, *I was king of them;* bābiruš hamiθ^r^iya abava, Bh. 1. 80, *Babylon became rebellious.*

4. The Verb and Its Modifiers.

607. The modifiers of the verb show great freedom of position, occurring first in the sentence, or between the subject or object and the verb, or after the verb, with little difference of meaning or emphasis; *e. g.*, patiy duvitīyam hamiθ^r^iyā ha^n^gmatā, Bh. 2. 57-58, *Again a second time the rebels came together;* adam kāram maškāuvā avākanam, Bh. 1. 86, *I placed my army on floats of skins;* hauv udapatatā bābirauv, Bh. 1. 78, *He rose up in Babylon;* adam nijāyam hacā bābirauš ašiyavam mādam yaθā mādam parārasam, Bh. 2. 64-65, *I went from Babylon, I went away to Media; when I went to Media*, etc.; adam kāram pārsam frāišayam abiy v^i^štāspam hacā ragāyā, Bh. 3. 1-3, *I sent forth the Persian army to Hystaspes from Ragā.*

608. Adverbs that connect with a preceding sentence naturally stand first in the clause; so pasāva, avaθā, avadā; but avaθā is placed after the verb when its correlative yaθā follows, if we read correctly iyam yauviyā [akāniy] ava[θā ya]θā adam

niyaštāyam, Dar. Sz. c. 10-11, *This canal was dug thus, as I commanded.*

609. The infinitive always follows the verb on which it depends; *e. g.*, **hauv fravartiš . . . āiš had[ā] kārā patiš mām hamaranam cartanaiy**, Bh. 2. 66-67, *This Phraortes . . . went with (his) army against me to engage in battle;* **ima stānam hauv niyaštāya ka^{n}tanaiy**, Xerx. Van. 20-21, *This place he commanded to dig out.*

610. The negatives **naiy** and **mā** precede the word or phrase to which they belong; *e. g.*, **naiy āha martiya**, Bh. 1. 48, *There was not a man;* **yaθā ima hašiyam naiy duruxtam adam akuna[vam]**, Bh. 4. 44-45, *That this (is) true (and) not false (which) I did;* **hauvtaiy gastā mā θadaya**, Dar. NRa. 57-58, *May this not seem to thee repugnant.*

5. The Position of Enclitics.

611. Enclitics, aside from those which belong particularly to certain words or phrases, tend to occupy the second place in the clause. This is almost invariably the position of the enclitic pronoun; *e. g.*, **auramazdāmaiy upastām abara**, Bh. 2. 39-40, *Ahura Mazda bore me aid;* **aitamaiy auramazdā dadātuv**, Dar. NRa. 54-55, *This let Ahura Mazda give me;* **auramazdātay jatā bīyā utātaiy taumā mā bīyā**, Bh. 4. 58-59, *May Ahura Mazda be a smiter to thee, and may there not be unto thee a family;* **avamšām maθištam akunavam**, Bh. 3. 31-32, *Him I made chief of them;* **pasāvašaiy adam utā nāham utā gaušā frājanam utāšaiy [u]cašma avajam**, Bh. 2. 88-89, *Afterwards I cut off his nose and ears and put out his eyes.*

This rule is followed even when it seems to dis-

arrange the natural order of words; *e. g.*, **haruvašim kāra avaina**, Bh. 2. 75-76, *All the people saw him;* **utamaiy tya pitā akunauš**, Xerx. Pers. a. 15, *And what my father did.*

6. The Interrupted Sentence.

612. A noticeable feature of the word order in many places of the inscriptions is the interruption of a sentence by the mention of a man, a time, or a place, after which the sentence is resumed, usually with a demonstrative pronoun or adverb; *e. g.*, **yaθā adam gaumātam tyam magum avājanam pasāva I martiya āθ^{r}ina nāma upadara^{n}mahyā puθ^{r}a hauv udapa-ta[tā]**, Bh. 1. 73-74, *When I slew Gaumâta the Magian, afterwards, one man, Âθ^{r}ina by name, the son of Upadara(n)ma, he rose up;* **xšaθ^{r}am hauv agarbāyatā garmapadahya māhyā IX raucabiš θakatā āha^n avaθā xšaθ^{r}am agarbāyatā**, Bh. 1. 41-43, *He seized the kingdom—nine days in the month Garmapada were completing their course—then he seized the kingdom;* **I martiya vahyazdāta nāma tāravā nāma vardanam yautiyā nāmā dahyāuš pārsaiy avadā adāraya**, Bh. 3. 22-23, *One man, Vahyazdâta by name—a town, Târavâ by name,—a province, Yautiyâ by name, in Persia,—here he dwelt.*

CHAPTER XIX.

THE ANCIENT PERSIAN MONTHS.

613. FROM the Babylonian version of the Behistan Inscription it is possible to identify five of the Ancient Persian months, as follows:

θūravāhara (*θūra, *vigorous*, + *vāhara, *springtime*) = Iyyar (Bab. **aiyaru**), April-May.

θāigarci = Sivan (Bab. **simannu**), May-June.

āθ^riyādiya (*ātar, *fire*, + *yādiya, *worship*) = Kislev (Bab. **kislimu**), November-December.

anāmaka (a + *nāmaka, month *of the nameless, i. e.*, the highest, god) = Tebet (Bab. **ṭebetu**), December-January.

viyaxna = Adar (Bab. **addaru**), February-March.

614. From the recently discovered Aramaic Papyrus fragments of the Behistan Inscription Professor Tolman (AJP XXXII, 444ff, 1911) was able to identify the Ancient Persian month **garmapada** with Tammuz (Bab. **dūzu**), thus making it certain that **garmapada** (*garma, *heat*, + *pada, *station*) corresponds to the season of June-July. His identification has now been accepted by philologists and historians.

615. This leaves three Ancient Persian months still unidentified. The Elamite **markazanaš** (Ancient Persian mutilated) may, according to the view of Weissbach (ZDMG 62, 637), correspond to the eighth Babylonian month **araḫsamna**, October-November, while **bāgayādi** (baga, *god*, + *yāda, *worship*), as Oppert and Marquart have held, may be the same as the seventh Babylonian month **tišritu**, September-October. The season of the month **adukaniša** (kan, *dig*) is even more uncertain.

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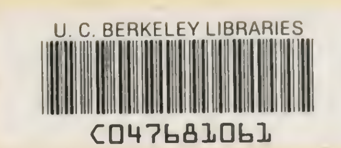
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